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August 2014 Oil and Gas Lease Sale

Location: Salt Lake Field Office
Tooele and Rich Counties

Applicant/Address: Not Applicable

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August 2014 Oil and Gas Lease Sale

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1.0 PURPOSE & NEED

1.1 Introduction

The Salt Lake Field Office (SLFO) of the Bureau of Land Management (BLM) has prepared this environmental assessment (EA) to disclose and analyze the environmental consequences for the sale of parcels during the August 2014 oil and gas lease sale and subsequent lease issuance to successful bidders. The EA is a site-specific analysis of potential impacts that could result from the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any significant impacts could result from the analyzed actions. Significance is defined by NEPA and is found in regulation 40 Code of Federal Regulations (CFR) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If the decision maker determines that this project has significant impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI statement, for this EA would document the reasons why implementation of the selected alternative would not result in significant environmental impacts (effects) beyond those already addressed in the 1990 Pony Express Resource Management Plan and Record of Decision (PE RMP/ROD, BLM, 1990) and the 1980 Randolph Management Framework Plan (MFP, BLM 1980) as amended by the 1994 Bear River East Plan Amendment and Decision Record (BREPA, 1994).

1.2 Background

The BLM policy is to make mineral resources available for use and to encourage their orderly development to meet national, regional, and local needs. This policy is based in various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Sec. 5102(a)(b)(1)(A)) directs the BLM to conduct quarterly oil and gas lease sales in each state whenever eligible lands are available for leasing.

Expressions of Interest (EOI) to nominate parcels for leasing by the BLM are submitted by the public. From these EOIs, the BLM Utah State Office (UTSO) forwards a preliminary parcel list to the West Desert District Office (WDD), which includes the SLFO and Fillmore Field Office (FFO), for review and processing. The SLFO determines whether or not the existing analyses in the land use plans, as amended, provides an adequate basis for leasing oil and gas resources or that additional NEPA analysis is needed before making a leasing recommendation. In order to meet the requirements of Washington Office (WO) Instruction Memorandum (IM) 2010-117, in most instances an EA will be initiated for the parcels within the SLFO.

After the EA is prepared, it and the unsigned FONSI are made available to the public along with the list of available lease parcels and stipulations and notices for a 30-day public comment period on the Utah Environmental Notification Bulletin Board¹ (ENBB). The UTSO Oil and Gas Leasing webpage² (webpage) is also updated and maintained for the lease sale. Additional information regarding the BLM's leasing process is also made available for public review and reference. After the end of the public comment period, the BLM analyzes and incorporates the comments where appropriate and changes to the document and/or lease parcels list are made, if necessary. The final parcel list with stipulations and notices is made available to the public through a Notice of Competitive Lease Sale which starts the protest period (30 days) with a copy of the EA and an unsigned FONSI. The protest period ends 60 days before the scheduled lease sale. The Utah BLM resolves any protests within the 60 days between the end of the protest period and the lease sale when possible. If any changes are needed to the parcels or stipulations/notices, an erratum is posted to the BLM website to notify the public of the change.

The parcels would be available for sale at an auction held by the UTSO tentatively scheduled for August 19, 2014. If a parcel is not purchased at the lease sale by competitive bidding, it may still be leased within two years after the initial offering. A lease may be held for ten years, after which the lease expires unless oil or gas is produced in paying quantities. A producing lease can be held indefinitely by economic production.

A lessee must submit an Application for Permit to Drill (APD) (Form 3160-3) to the BLM for approval and must possess an approved APD prior to any surface disturbance in preparation for drilling.³ Any stipulations attached to the standard lease form must be complied with before an APD may be approved. Following BLM approval of an APD, a lessee may produce oil and gas from the well in a manner approved by BLM in the APD or in subsequent sundry notices. The operator must notify the appropriate authorized officer (AO), 48 hours before starting any surface disturbing activity approved in the APD.

Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, October 2008 or later edition). Although once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands. Operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with valid, nondiscretionary statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives.

¹ The ENBB is a BLM environmental information internet site and can be accessed online at: <https://www.blm.gov/ut/enbb/index.php>. Search records by the Salt Lake Field Office and Environmental Assessment. Scroll to the August 2014 Oil and Gas Lease Sale entry.

² Utah BLM's Oil and Gas Leasing program webpage can be accessed online at: http://www.blm.gov/ut/st/en/prog/energy/oil_and_gas/oil_and_gas_lease.html

³ Additional information regarding the BLM's oil and gas management program can be accessed online at: http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas.html

Nondiscretionary actions include the BLM's requirements under federal environmental protection laws, such as the Clean Water Act, Clean Air Act, Endangered Species Act, National Historic Preservation Act, and Federal Land Policy Management Act, which are applicable to all actions on federal lands even though they are not reflected in the oil and gas stipulations in the governing land use plans and would be applied to all potential leases regardless of their category. Also included in all leases are the two mandatory stipulations for the statutory protection of cultural resources (BLM Washington Office (WO) Instruction Memorandum (IM) 2005-003, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing) and threatened or endangered species (BLM WO IM 2002-174, Endangered Species Act Section 7 Consultation).

The preliminary parcel list originally contained 157 parcels consisting of 305,181.96 acres (155 parcels/303,118.89 acres within the SLFO and 2 parcels/2,063.07 acres within the FFO).⁴ After an initial interdisciplinary review by the SLFO, 122 parcels (238,509.38 acres) are deferred because they are located on lands within greater sage-grouse occupied habitat, are located within areas of the "Military Munitions Response Program" (MMRP) and are within the potential trail management area of the California National Historic Trail (NHT). Before oil and gas leasing can occur, BLM must address its management of these resources through the land use planning process.

In addition, 13 parcels (27385.00 acres) located within the Knolls Recreation Management Area (SRMA) are also deferred for the safety of the recreating public. The Pony Express RMP and the Knolls SRMA plan only address the management of locatable minerals; which are proposed for withdrawal. The locatable mineral entry withdrawal is necessary in order to help protect the recreational use. A similar conclusion could also be made regarding the potential impacts from mineral leasing. The RMP and SRMA did not anticipate any interest in leasable mineral potential. Determining the level of impacts that oil and gas development would have on the safety of motorized recreationists in the SRMA could not conclude within the allotted time for preparing this EA. SLFO acknowledged that these lands may be subject to future mineral development conflicts if an applicant applies for an oil and gas lease in this area (refer to page 8, Mineral Potential Report, 2004). The Mineral Potential Report also states that directional drilling for oil and gas resources from adjacent Federal lands should not affect the availability of fluid leasable mineral resources of the United States. However, the current RMP leasing category does not allow the lease of the lands within the Knolls SRMA under a No Surface Occupancy category which would allow the development of the mineral resources through directional drilling from adjacent Federal parcels. Furthermore, the SRMA Plan and the RMP do not specify how leasing actions would be stipulated for the protection of the recreating public. SLFO anticipates a clear conflict with the goals and objectives of the SRMA should any oil or gas lease be issued.

The SLFO is currently involved in the programmatic effort to address the management of the greater sage-grouse. In accordance with this effort, the SLFO is deferring leasing on the 36 Rich County parcels (58,242.71 acres), which have been identified as occupied habitat for greater sage-grouse, until the programmatic management effort is complete and protective measures are identified for the species.

⁴ The FFO parcels will be addressed under a separate environmental assessment DOI-BLM-UT-W020-2014-0012-EA and FONSI.

The SLFO is not currently involved in a land use plan revision nor is it presently able to conduct the land use planning that is necessary in certain areas in order to address the management of lands with wilderness characteristics and NHT resources because of certain statutorily imposed requirements, which include section 2815 of the National Defense Authorization Act for Fiscal Year 2000 (P.L. 106-65) and section 383 of the National Defense Authorization Act for Fiscal Year 2006 (P.L. 109-163). As a result, parcels that are located in areas of the SLFO where a need for land use planning has been identified have been deferred until the necessary land use planning is completed.

Additional information regarding the deferred parcels is contained in section 2.5.

This EA has been prepared to disclose and analyze the environmental consequences of leasing 20 parcels (37,224.51 acres) located in the SLFO to be included as part of a competitive oil and gas lease sale tentatively scheduled to occur August 19, 2014. For reference, Appendix A contains the August 2014 Oil and Gas Lease Sale Parcel List, Appendix B contains maps of the subject parcels and Appendix C identifies the parcels that are not carried forward along with a corresponding rationale for the deferral.

1.3 Purpose and Need of the Proposed Action

The parcels proposed for leasing were nominated by industry. The need for the lease sale is to respond to the nomination requests. Offering parcels for competitive oil and gas leasing provides for the orderly development of fluid mineral resources under BLM's jurisdiction in a manner consistent with multiple use management and environmental consideration for the resources that may be present.

The purpose for analyzing the preliminary parcels for potential sale is to ensure that adequate provisions are included in the lease stipulations to protect public health and safety, and assure full compliance with the objectives of NEPA and other federal environmental laws and regulations designed to protect the environment and mandating multiple use of public lands. The BLM is required by law to review areas that have been nominated, and there has been ongoing interest in oil and gas exploration in the SLFO area. Oil and gas leasing is a principal use of the public lands as identified in Section 102(a)(12), 103(1) of the Federal Land Policy and Management Act of 1976 (FLPMA), and it is conducted to meet requirements of the Mineral Leasing Act of 1920, as amended, the Mining and Minerals Policy Act of 1970, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act). Leases would be issued pursuant to 43 CFR Subpart 3100.

1.4 Conformance with BLM Land Use Plan

The alternatives described below are in conformance with the governing land use plans (as amended and supplemented) because they are specifically provided for in the planning decisions as follows:⁵

- The PE RMP/ROD, Minerals Program Decision 2 categorizes all lands in Salt Lake, Utah and Tooele counties that are available for leasing along with any applicable stipulations that would be attached to leases offered for certain areas (BLM 1990; pages 23-28 and

⁵ The page numbers, maps or figures referenced in the decisions are found in the Pony Express RMP and are not those found directly in this document.

Figure 5). As augmented by the DR prepared for the PE RMP Oil and Gas Supplemental Environmental Assessment (EA UT-020-89-11).

Because the Rich County parcels are being deferred due to greater sage-grouse or are located in the Laketown Canyon ACEC which is closed to leasing activity; plan conformance discussions for the Randolph MFP is not necessary. The alternatives are also consistent with the PE RMP decisions related to the management of the following resources, including but not limited to: air quality, soil, water, visual resources, cultural resource and rangeland management.

1.5 Relationship to Statutes, Regulations, or Other Plans

The proposed action is consistent with federal environmental laws and regulations, Executive Orders, and Department of Interior and the BLM policies and is in compliance, to the maximum extent possible, with state laws and local and county ordinances and plans to the maximum extent possible, including the following:

- Federal Land Policy and Management Act of 1976 (FLMPA) and associated regulations at 43 CFR, Part 2800
- National Historic Preservation Act of 1966 (NHPA), as amended, and associated regulations at 36 CFR Part 800
- Bald and Golden Eagle Protection Act of 1962
- Endangered Species Act of 1973, as amended
- Migratory Bird Treaty Act of 1918
- BLM Manual 6840 – Special Status Species Management
- MOU Among the USDA, USDI and EPA Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process (2011)
- Determining Conformity of Federal Actions to State or Federal Implementation Plans (40 CFR Part 93 Subpart E)
- State Protocol Agreement Between the Utah State Director of the Bureau of Land Management and the Utah State Historic Preservation Officer Regarding the Manner in which the Bureau of Land Management Will Meet its Responsibilities Under the National Historic Preservation Act and the National Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers (2001)
- Tooele County Master Plan, as revised
- Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (BLM WO IM 2010-117)

Other EISs/EAs and studies that influence the scope of this document includes:

- Salt Lake District Oil and Gas Leasing Environmental Analysis Record (EAR) (1975)
- Proposed Pony Express RMP and Final EIS (9/1988)
- Draft Pony Express RMP and Draft EIS (5/1988)
- Oil and Gas Leasing Supplemental Pony Express Resource Area and DR (1989)
- Bear River East Plan Amendment and DR (9/1994)

- Inventory of Onshore Federal Oil and Natural Gas Resources and Restrictions to Their Development 2008 Phase III Inventory – Onshore United States⁶
- Knolls Recreation Area Management Plan (7/2004) and FONSI/DR for EA UT-020-2003-0101.

These documents and their associated information or analysis are hereby incorporated by reference, based on their use and consideration by various authors of this document. The attached Interdisciplinary Team Checklist, Appendix D, was also developed after consideration of these documents and their content. These resources are either analyzed later in this document or, if not impacted, are also listed in Appendix D.

1.6 Identification of Issues

The proposed action was reviewed by an interdisciplinary parcel review (IDPR) team composed of resource specialists from the SLFO. This team identified resources within the parcel which might be affected and considered potential impacts using current office records and geographic information system (GIS) data, and site visits. The UTSO specialists for air quality and solid minerals reviewed the proposal. The results of the IDPR team reviews are contained in the Interdisciplinary Team Checklists, Appendix D.

On November 13, 2013, the UTSO sent letters to the National Park Service (NPS), United States Fish and Wildlife Service (USFWS), United States Forest Service (USFS) and the State of Utah's Public Lands Policy Coordination Office (PLPCO), Division of Wildlife Resources (UDWR) and the School Institutional Trust Lands Administration (SITLA) to notify them of the pending lease sale, solicit comments and concerns on the preliminary parcel list and invite them to participate in site visits. The UTSO also provided GIS shapefiles depicting the proposed August 2014 lease sale parcels to contact points within the NPS and UDWR. Consultation has also occurred with the United States Air Force, Utah Test and Training Range Headquarters, Hill Air Force Base. These agencies are partners in the leasing process. Additional information regarding coordination and consultation with partner agencies is provided in section 5.2.

Site visits were completed on 11/26/2013 and 01/07/2014 and data searches were conducted by the BLM staff on the parcels to validate the existing data and gather new information in order to make informed leasing recommendations. None of the other agencies participated in the site visits with the SLFO IDPR team.

The deadline for the public to nominate areas or otherwise submit EOIs was October 7, 2013. As per WO IM 2010-117 (Leasing Reform), public notification was initiated by entering the project information on the ENBB on March 21, 2014. Public participation is also documented in section 5.3.

⁶ EPCA Phase III Inventory is located online at:
http://www.blm.gov/style/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION/energy/0.Par.4483.File.dat/EPCA2008LOfront.pdf

1.7 Summary

This chapter has presented the purpose and need of the proposed project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves the issues, the BLM has considered and/or developed a range of action alternatives. These alternatives are presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative considered in detail are analyzed in Chapter 4 for each of the identified issues.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Introduction

This EA addresses three alternatives (Alternative A – Leasing Under the Existing Land Use Plans; Alternative B – Proposed Action, Leasing with Additional Protective Measures and Alternative C – No Action, No Leasing).

Other alternatives were not considered because the issues identified during scoping did not indicate a need for additional alternatives or protective measures beyond those contained in the proposed action. The No Action alternative is considered and analyzed to provide a baseline for comparison of the impacts of the Proposed Action.

Leasing is an administrative action that affects economic conditions but does not directly cause environmental consequences. However, leasing is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy (NSO) stipulation. Potential oil and gas exploration and production activities, committed to in a lease sale, could impact other resources and uses in the planning area. Direct, indirect, or cumulative effects to resources and uses could result from as yet undetermined and uncertain future levels of lease exploration or development.

Analysis Assumptions

2.1.1 Reasonably Foreseeable Development Scenario

Although at this time it is unknown when, where, or if future well sites or roads might be proposed on any leased parcel, should a lease be issued, site specific analysis of individual wells or roads would occur when a lease holder submits an APD. For the purposes of the analysis for each resource, the BLM assumed that one well pad with road and pipeline could be constructed on each lease subject to the terms, conditions, and stipulations of the lease. However, in general, activities are anticipated to take place as described in the following sections. The Pony Express Resource Area prepared a RMP oil and gas supplemental environmental assessment (EA UT-020-89-011). The PE O&G supplemental EA outline the respective foreseeable development scenario (RFD).

The RFD scenario for the PE RMP/ROD as established in PE O&G Supplemental EA includes the following:

Seismic Activity:

- One Seismic line
- 50 miles long and 12 feet wide
- 1.46 acres disturbed per mile = 73 acres total
- Four percent of disturbed acreage will not be reclaimable;
- Therefore, 73 acres x .04 = 2.9 acres not reclaimed.

Exploration drill pads (including roads):

- Anticipate three pads in 11 years
- 6.8 acres per pad x 3 = 20.4 acres disturbed
- Four percent of disturbed acreage will not be reclaimable;
- Therefore, 20.4 acres x .04 = 0.816 acres not reclaimed.

Producing wells:

- No producing wells anticipated

This would still be reasonable because the actual disturbance has only been 17 Federal wells drilled in Tooele County over the last 57 years (State of Utah Well History Database, 2013).⁷ All of these wells have been plugged and abandoned. The most recent APD was approved in April 2007. This APD resulted in a dry hole that was plugged, rehabilitated and abandoned (Skull Valley Fed 21-1, API #43-045-30031; T 3 S, R 9 W). Four wells nearest to the proposed parcels are located in T1S-R17W and T2S-R17W have also been plugged and abandoned or the location was abandoned outright.

Specifically, this database shows 17 Federal wells (116 acres) have been drilled within the project area. This shows that the number of wells and surface disturbance has occurred as anticipated in the supplemental EA analysis prepared for the RMP. Therefore, the RFD is still appropriate since the actual disturbance/wells in each area has not been exceeded and is a much smaller number than what was anticipated in the PE RMP as supplement.

The EPCA Phase III Inventory places the western portion of the SLFO within the Eastern Great Basin region or study area. Other regions within the SLFO include the Uinta-Piceance Basin and the Wyoming Thrust Belt. A very small portion of the Southwestern Wyoming study area intersects the SLFO in Summit County. The EPCA Phase III inventory at Figure 3-30 (page 152) shows that the parcels within the Eastern Great Basin also occur within areas open to leasing with standard, minor and major constraints; Figure 3-31 (page 153) and Figure 3-31 (page 154) show that the area could produce 5-12 thousands of barrels per square mile of total oil and 0-5 millions of cubic feet per square mile of total gas. It identifies access issues due to tar sand mineral development and recreation conflicts if oil and gas development were to occur and acknowledges the National Defense Authorization Act of 2000 as hindering land use planning.

⁷ State of Utah Well History Database data accessed online at:
http://oilgas.ogm.utah.gov/Data_Center/LiveData_Search/well_history_lookup.cfm

2.1.2 Well Pad and Road Construction

Equipment for well pad construction could consist of dozers, scrapers, excavators and graders. All well pads would be reclaimed. All available topsoil from each well pad would be stripped and stockpiled around the edge of the pad for future reclamation. When needed, topsoil would be spread over interim reclamation areas, seeded, left in place for the life of the well, and the remaining topsoil would be used during the final reclamation process. For this analysis, it was assumed that disturbance for well pads would be 6.8 acres per well to account for any infrastructure (e.g., pipelines) that would be required if the wells were to go into production (section 2.1.3). Disturbed land would be seeded with a mixture (certified weed free) and rate as recommended or required by the BLM.

Depending on the locations of the proposed wells, it is anticipated that some new or upgraded access roads would be required to access well pads and maintain production facilities. Any new roads constructed for the purposes of oil and gas development would be utilized year-round for maintenance of the proposed wells and other facilities, and for the transportation of fluids and/or equipment, and would remain open to other land users. Construction of new roads or upgrades to existing roads would require a 30-foot construction width and would be constructed of native material. After completion of road construction activities, the 30-foot construction width would be reclaimed to an 18-foot wide crowned running surface as well as drainage ditches. It is not possible to determine the distance of road that would be required because the location of the wells would not be known until the APD stage. However, for purposes of analyses it is assumed that disturbance from access roads would be approximately 1.8 acres of disturbance for each well (0.5 mile of road/well). For analysis purposes, SLFO estimates approximately 224.4 acres would be disturbed (33 wells, including roads x 6.8 acres). With the deferral of the 13 parcels within Knolls SRMA, the estimated level of disturbance would be 136 acres (20 wells, including roads x 6.8 acres).

2.1.3 Production Operations

If wells were to go into production, facilities would be located at the well pad and typically include a well head, a dehydrator/separator unit, and storage tanks for produced fluids. The production facility would typically consist of two storage tanks, a truck load-out, separator, and dehydrator. Construction of the production facility would be located on the well pad and not result in any additional surface disturbance.

All permanent surface structures would be painted a flat, non-reflective color (e.g., juniper green) specified by the BLM in order to blend with the colors of the surrounding natural environment. Facilities that are required to comply with the Occupational Safety and Health Act (OSHA) would be excluded from painting color requirements. All surface facilities would be painted immediately after installation and under the direction and approval of the BLM.

If oil is produced, the oil would be stored on location in tanks and transported by truck to a refinery. The volume of tanker truck traffic for oil production would be dependent upon production of the wells.

If natural gas is produced (which is more likely to occur than the production of oil), construction of a gas sales pipeline would be necessary to transport the gas. An additional Sundry Notice, right of way (ROW) and NEPA analysis would be completed, as needed, for any pipelines and/or other production facilities proposed across public lands. BLM BMPs (Best Management

Practices), such as burying the pipeline or installing the pipeline within the road, would be considered at the time of the proposal.

All operations would be conducted following the “Gold Book”, *Surface Operating Standards for Oil and Gas Exploration and Development*. The Gold Book was developed to assist operators by providing information on the requirements for conducting environmentally responsible oil and gas operations on federal lands. The Gold Book provides operators with a combination of guidance and standards for ensuring compliance with agency policies and operating requirements, such as those found at 43 CFR 3000 and 36 CFR 228 Subpart E; Onshore Oil and Gas Orders (Onshore Orders); and Notices to Lessees. Included in the Gold Book are environmental BMPs; these measures are designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Exploration and development on split-estate lands is also addressed in the Gold Book, along with IM 2003-131, Permitting Oil and Gas on Split-Estate Lands and Guidance for Onshore Oil and Gas Order No. 1, and IM 2007-165, Split-Estate Report to Congress – Implementation of Fluid Mineral Leasing and Land Use Planning Recommendations. Proper planning and consultation, along with the proactive incorporation of these BMPs into the APD Surface Use Plan of Operations by the operator, would typically result in a more efficient APD and environmental review process, increased operating efficiency, reduced long-term operating costs, reduced final reclamation needs, and less impact to the environment.

2.1.4 Produced Water Handling

Water is often associated with either produced oil or natural gas. Water is separated out of the production stream and can be temporarily stored in the reserve pit for 90 days. Permanent disposal options include discharge to evaporation pits or underground injection. Handling of produced water is addressed in Onshore Oil and Gas Order No. 7.

2.1.5 Maintenance Operations

Traffic volumes during production would be dependent upon whether the wells produced natural gas and/or oil, and for the latter, the volume of oil produced. Well maintenance operations may include periodic use of work-over rigs and heavy trucks for hauling equipment to the producing well, and would include inspections of the well by a pumper on a regular basis or by remote sensing. The road and the well pad would be maintained for reasonable access and working conditions. Portions of the well pad not needed for production of the proposed well, including the reserve pit, would be re-contoured and reclaimed, as an interim reclamation of the site.

2.1.6 Plugging and Abandonment

If the wells do not produce economic quantities of oil or gas, or when it is no longer commercially productive, the well would be plugged and abandoned. The wells would be plugged and abandoned following procedures approved by a BLM Petroleum Engineer, which would include requiring cement plugs at strategic positions in the well bore. All fluids in the reserve pit would be allowed to dry prior to reclamation work. After fluids have evaporated from the reserve pit, sub-soil would be backfilled and compacted within 90 days. If the fluids within the reserve pit have not evaporated within 90 days (weather permitting or within one evaporation cycle, i.e. one summer), the fluid would be pumped from the pit and disposed of in accordance with applicable regulations. The well pad would be re-contoured, and topsoil would be replaced, scarified, and seeded within 180 days of the plugging the well.

2.2 Alternative A – Leasing Under the Existing Land Use Plans

Alternative A would offer for lease 20 nominated parcels (37,224.51 acres) within the administration of the SLFO which have been proposed for auction in the August 2014 oil and gas sale and are identified in Appendix A. Alternative A would also include the deferral of the parcels listed in Appendix C. Currently areas are offered for oil and gas leasing subject to measures necessary to mitigate adverse impacts, according to the categories, terms, conditions, and stipulations identified in the PE RMP and its O&G Supplemental EA.

Measures identified in these documents are applied through a category system at the time of leasing and the on- the-ground implementation of those stipulations and categories is accomplished through the APD process. There are four fluid mineral leasing categories located within the analysis area Categories I through IV.

Category 1 lands would be available for leasing with standard lease terms (BLM Form 3100-11). In addition to protections provided for under standard terms of the lease, two mandatory stipulations are imposed by policy by the BLM on every lease issued: one refers to the statutory protection of cultural resources and one for the statutory protection of threatened or endangered species, as described below.

All leases issued subsequent to October 5, 2004, would include the lease stipulation for the protection of cultural resources (WO IM 2005-003, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing), which states:

“This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.”

All leases issued would include the lease stipulation for the protection of threatened or endangered species (WO IM 2002-174, Endangered Species Act Section 7 Consultation), which states:

“The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity until it completes its obligations under applicable requirements of the ESA as amended, 16 United States Code (USC) 1531 et seq. including completion of any required procedure for conference or consultation.”

In addition, BLM regulations at 43 CFR 3101.1-2 allow, at a minimum, for the relocation of proposed oil and gas leasing operations up to 200 meters and/or timing limitations up to 60 days to provide additional protection to ensure that proposed operations minimize adverse impacts to resources, uses, and users.

Category 2 lands would be available for leasing with the standard lease terms and additional moderate constraints. The additional moderate constraints that would be applied include the two mandatory lease stipulations described above and the special stipulations identified in the PE RMP, as amended. These special stipulations include timing and/or controlled surface use (CSU) for resources such as wildlife habitat, riparian/wetland habitat, drinking water source protection zones and visual resource management (VRM) Class II and III areas.

Stipulations serve to modify the rights granted by the standard lease terms when the BLM determines that conflicts exist between the relative resource values, uses, and/or users and oil and gas operations that cannot be adequately managed under the standard lease terms or by relocating the proposed operations up to 200 meters or delaying operations by up to 60 days. In addition to stipulations, lease notices can be attached to a lease to inform the lease purchaser of other resource issues that may occur on the parcel.

Category 3 lands would be available for leasing only with major constraints, such as NSO stipulations identified in the PE RMP, as amended, for those leases where adverse impacts would occur through surface use of the land for oil and gas exploration and development.

Category 4 areas would include portions of the SLFO that have been identified in the RMP, as amended, as closed to leasing such as wilderness designation or interim policy such as the Interim Management Policy for Lands Under Wilderness Review (H-8550-1).

2.3 Alternative B – Proposed Action, Leasing with Additional Protective Measures

The Proposed Action alternative would also offer for lease the 20 nominated parcels (37,224.51 acres) within the administration of the SLFO which have been proposed for auction in the August 2014 oil and gas lease sale and are identified in Appendix A. Alternative B would also include the deferral of the parcels listed in Appendix C. This alternative would lease the 20 parcels subject to the standard lease terms and stipulations described in Alternative A with the addition of resource protection measures that are beyond the terms and stipulations described for the Alternative A and beyond that which could be achieved through relocation of a proposed activity up to 200 meters and/or timing restrictions of 60 days or other existing administrative actions. The effects of implementing the Proposed Action alternative would be similar to the Alternative A with the caveat that, under this alternative, more stringent measures would be applied to some leases to further protect specific resources (Table 2). Lease Notices have been developed for conservation measures and would be applied on specific lease parcels as warranted by subsequent ID Team review. The addition of prescribed lease notices would be applied to all leasing categories.

Table 2: Additional Conservation Measures Included in the Proposed Action Alternative

Protection provided to the area has been identified by the UDWR as containing golden eagle habitat since the PE RMP, as amended has been completed. Exploration, drilling and other development activities may be restricted to protect this habitat. (Reference notice UT-LN-40).
Additional protection of migratory birds wherein surveys would be required whenever disturbances and/or occupancy are proposed in association with oil and gas exploration and development within priority habitats. Based on the results of the field survey, the authorized officer will determine the appropriate buffers and timing limitations. (Reference notice UT-LN-45).
Additional protection of raptors wherein surveys would be required whenever disturbances and/or occupancy are proposed in association with oil and gas exploration and development within potential raptor protection buffer areas. Based on the results of the field survey, Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use

Table 2: Additional Conservation Measures Included in the Proposed Action Alternative

Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. (Reference notice UT-LN-44).
No surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1(Reference notice UT-LN-49).
The parcels may contain or are near areas containing noxious weeds. Best management practices to prevent or control noxious weeds may be required for operations on the lease. (Reference notice UT-LN-52).
To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following measures would be integrated: All internal combustion equipment would be kept in good working order; Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer; Open burning of garbage or refuse would not occur at well sites or other facilities; Drill rigs would be equipped with Tier II or better diesel engines; Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater; Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers; During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible; Well site telemetry would be utilized as feasible for production operations; and Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines <300HP; and 1g NOx/bhp-hr for engines >300HP. Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate based on the size of the project and magnitude of emissions. (Reference notice UT-LN-96).
Certain lease operations and permanent construction may be restricted, which may include restrictions on tower/rig heights, occupancy, chaff and flares, emissions and electronic counter measures, noise, lights and reflective surfaces, for parcels that are located adjacent to or near the Utah Test and Training Range (UTTR) or beneath Military Operating Areas and the Restricted Airspace of the UTTR. (Reference notice UT-LN-84).
All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour. (Reference notice UT-LN-101).
Prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures. (Reference notice UT-LN-102).
Unexploded ordnances from past military activities may occur within the parcels. Additional coordination with the Army Corp of Engineers and Hill Air Force Base may be required to manage this safety hazard. (Reference notice UT-LN-119).

Legal description of each nominated parcel along with the stipulations and the lease notices that would be attached to the parcels under this alternative can be found in Appendix A.

2.4 Alternative C – No Action

The No Action Alternative would not offer any of the nominated parcels for sale.

2.5 Alternatives Considered but Not Carried Forward

Leasing All Parcels

A total of 155 parcels were nominated and forwarded to the SLFO IDPR for review. Of the nominated parcels for the August 2014 lease sale, 135 parcels (or portions thereof) were identified as being located on lands that contained one of the following: greater sage-grouse occupied habitat, areas contaminated with unexploded ordnances (UXOs), are within the potential trail management corridor of the California NHT (CNHT) and are located within the Knolls SRMA. Before oil and gas leasing can occur, BLM must address its management of these resources in a land use planning process.

The SLFO is currently involved in a programmatic effort to address the management of the greater sage-grouse. In accordance with this project, the SLFO is deferring leasing on the 36 Rich County parcels (58,242.71 acres), which have been identified as occupied habitat for greater sage-grouse, until the programmatic management effort is complete and protective measures are identified for the greater sage-grouse and its habitat.

Large areas of the SLFO have been used by the Department of Defense for its military readiness exercises. Part of that activity does create a situation where UXOs may be left behind on the public lands. When these are present, safety hazards exist. The exact locations of these items are not known. Additional survey would be required to locate and then dispose of them in accordance with Army Corp of Engineer and Hill Air Force Base policies. The survey and corresponding clean up could not be completed prior to the lease sale. Where the authorized officer believes that caution should prevail, leasing of these parcels is deferred. As a result of this issue with UXOs, 4 parcels have been deferred.

In accordance with section 201 of FLPMA, BLM Manual 6280 – Management of National Scenic and Historic Trails, and BLM Manual 6310 – Conducting Wilderness Characteristics Inventory for BLM Lands, the BLM must undertake the process of updating or validating existing inventories of public lands as necessary when proposed activities or projects may impact certain resources.

Certain parcels north of Interstate 80 are bisected by a “high potential route segment” of the California National Historic Trail (CNHT), which was designated by Congress in 1992 after the 1990 PE RMP/ROD was approved. Therefore, protective measures or management prescriptions for the CNHT have not been identified for oil and gas leasing or development activity. Since the SLFO is not currently involved in a land use plan revision or amendment that will address the CNHT, leasing activity must be deferred in certain areas where the CNHT may be impacted until such time that the necessary land use planning action has been completed. As a result of this situation, 82 parcels have been deferred from the August 2014 lease sale.

Additional information regarding the deferred parcels is contained in Appendix C (Deferred Lands List).

As stated previously, parcels located within the Laketown Canyon ACEC are closed to leasing and have been removed from consideration for the August 2014 lease sale.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area as identified in the SLFO Interdisciplinary Team Checklist are found in Appendix D and introduced in Chapter 1 of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in Chapter 4. Only those aspects of the affected environment that are potentially impacted are described in detail (Appendix D).

3.2 General Setting

The proposed action would result in the leasing for oil and gas development of 20 parcels within the SLFO (Appendix B, Overview Map). The parcel legal land descriptions are contained in Appendix A.

The 20 SLFO parcels are located on the south side of Interstate 80 west of the Knolls SRMA and Intrepid Potash LLC in Tooele County, Utah. These parcels occur between the North and South Areas of the Utah Test and Training Range (UTTR). The only roads that cross through this group are generally located in the adjacent Knolls Recreation Area and paralleling Interstate-80, but spur roads may need to be constructed depending on pad locations. The terrain in the group is relatively flat with areas of mud flats and an occasional sand dune. The soils, made up of Lake Bonneville deposits, range from muds, silts and clays. The vegetation is barren/playa to salt desert shrub.

3.3 Resources/Issues Brought Forward for Analysis

The affected environment of the proposed action and no action alternatives were considered and analyzed by the interdisciplinary team as documented in the Interdisciplinary Team Checklist, Appendix D. The checklist indicates which resources of concern are either not present in the project area or would not be impacted to a degree that requires detailed analysis. Resources which could be impacted to a level requiring further analysis are described in this Chapter and impacts to these resources are analyzed in Chapter 4.

3.3.1 Air Quality

Air quality is affected by various natural and anthropogenic factors. Industrial sources such as oil and gas extraction activities within Northern Utah contribute to local and regional air pollution. Air pollutants generated by motor vehicles include tailpipe emissions and dust from travel over dry, unpaved road surfaces. Strong winds can generate substantial amounts of windblown dust.

Air pollution emissions are characterized as point, area, or mobile. Point sources are large, stationary facilities such as power plants and manufacturing facilities and are accounted for on a facility by facility basis. Area sources are smaller stationary sources and, due to their greater number, are accounted for by classes. Production emissions from an oil and gas well and dust from construction of a well pad would be considered area source emissions. Mobile sources consist of non-stationary sources such as cars and trucks. Mobile emissions are further divided into on-road and off-road sources. Engine exhaust from truck traffic to and from oil and gas locations would be considered on-road mobile emissions. Engine exhaust from drilling operations would be considered off road mobile emissions.

The Clean Air Act required the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Utah Division of Air Quality (UDAQ) is responsible to ensure compliance with the NAAQS within the state of Utah. Table 3 shows NAAQS for the EPA designated criteria pollutants (EPA 2008).

Table 3: National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide (CO)	9 ppm (10 mg/m ³)	8-hour (1)	None	
	35 ppm (40 mg/m ³)	1-hour (1)		
Lead (Pb)	0.15 µg/m ³ (2)	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m ³	Quarterly Average	Same as Primary	
Nitrogen Dioxide (NOx)	0.053 ppm (100 µg/m ³)	Annual (Arithmetic Mean)	Same as Primary	
	100 ppb	1-hour	Same as Primary	
Particulate Matter (PM ₁₀)	150 µg/m ³	24-hour (3)	Same as Primary	
Particulate Matter (PM _{2.5})	15.0 µg/m ³	Annual (4) (Arithmetic Mean)	Same as Primary	
	35 µg/m ³	24-hour (5)	Same as Primary	
Ozone (O ₃)	0.075 ppm (2008 std)	8-hour (6)	Same as Primary	
Sulfur Dioxide (SO ₂)	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m ³)	3-hour (1)
	0.14 ppm	24-hour (1)		
	75 ppb	1-hour (1)	None	
Not to be exceeded more than once per year. Final rule signed October 15, 2008. Not to be exceeded more than once per year on average over 3 years. To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3. To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006). To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008).				

Air quality in the area of the parcels meets the NAAQS (State Department of Environmental Quality and the Division of Air Quality Standards (Utah Division of Air Quality 2013 Annual Report)).⁸

⁸ Accessed online at: <http://www.airquality.utah.gov/Public-Interest/annual-report/.pdf/2013Annual%20Report.pdf>

An “unclassified” designation indicates that sufficient air monitoring is not available to make a determination as to attainment status. For regulatory purposes an unclassified county is considered the same as attainment. The UDAQ 2012 annual report includes a 2011 emissions inventory (EI) by county (Table 4).

Table 4. 2011 Triennial Inventory (tons/year)

County	CO	NO _x	PM ₁₀	PM _{2.5}	SO _x	VOC
Tooele	25,968.282	6,130.658	3,844.296	1,798.069	222.731	42,814.120

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NO_x, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order.

This EA addresses mobile off road engine exhaust emissions from drilling activities, venting and flaring emissions from completion and testing activities, emissions from ongoing production activities, and fugitive dust emissions, specifically emissions of total particulate matter of less than 10 micrometers (PM₁₀), from heavy construction operations. PM₁₀ emissions are converted from total suspended particulates by applying a conversion factor of 25%. PM_{2.5} is not specifically addressed as it is included as a component of PM₁₀. PM_{2.5} is converted from PM₁₀ by applying a conversion factor of 15%. This EA does not consider mobile on road emissions as they are dispersed, sporadic, temporary, and not likely to cause or contribute to an exceedance of the NAAQS.

3.3.2 Migratory Birds

A variety of migratory song bird species use habitats within the parcels for breeding, nesting, foraging, and migratory habitats. Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (MBTA). The MBTA makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products unless it is a permitted action. The Executive Order 13186 sets forth the responsibilities of Federal agencies to further implement provisions of the MBTA by integrating bird conservation principles and practices into agency activities and by ensuring that Federal actions evaluate the effects of proposed actions and agency plans on migratory birds. BLM’s role under the MBTA is to adequately manage migratory birds and their habitats, and to reduce the likelihood of a sensitive bird species from being listed under the Endangered Species Act.

In addition, a Memorandum of Understanding (MOU) between the BLM and United States Fish and Wildlife Service (USFWS) (BLM MOU WO-230-2010-04) provides BLM further direction for project-level NEPA guidance for meeting MBTA conservation and compliance. The emphasis is on the identifying sensitive bird species and habitats through the United States Fish and Wildlife Service (USFWS) 2008 Birds of Conservation Concern (BCC) Species List, the Utah Partners in Flight (UPIF) Species List (IM 2008-050), and BLM Sensitive Species List. The MOU direction includes evaluating the effects of BLM’s actions on these species during the NEPA process; including effects on bird population and habitat. The BLM is to implement approaches to lessen the likelihood of impacts by having project alternatives that avoid, minimize and mitigate adverse impacts for migratory birds the habitats they depend upon that are most likely to be present in the project area.

The physiographic regions within the SLFO are the Great Basin and the Wyoming Basin. The UPIF Priority Species List, the BCC lists for Region 9 (Great Basin) and Region 10 (Northern Rockies), the Raptor Inventory Nest Surveys database and the Utah Natural Heritage Database

(Utah Division of Wildlife Resources 2011) were used to identify potential habitat for priority species that could utilize habitats within the WDD and within the parcels. Table 5 lists the UPIF Priority Species list and the FWS BCC species that inhabit the SLFO and also may occur in the parcels.

Table 5: Priority Migratory Birds that may inhabit the parcels depending upon the Season⁹

Priority Species	1st Breeding Habitat	2nd Breeding Habitat	Wintering Habitat
American Avocet	Wetland	Playa	Migrant
Lucy's Warbler	Lowland Riparian	Low Desert Shrub	Migrant
American White Pelican	Water	Wetland	Migrant
Bobolink	Wet Meadow	Agriculture	Migrant
Virginia's Warbler	Oak	Pinyon-Juniper	Migrant
Gray Vireo	Pinyon-Juniper	Oak	Migrant
Bell's Vireo	Lowland Riparian	Lowland Riparian	Migrant
Long-Billed Curlew	Grassland	Agriculture	Migrant
Brewer's Sparrow	Shrubsteppe	High Desert Shrub	Migrant
Black-Necked Stilt	Wetland	Playa	Migrant
Broad-Tailed Hummingbird	Lowland Riparian	Mountain Riparian	Migrant
Ferruginous Hawk	Pinyon-Juniper	Shrubsteppe	Grassland
Red-Tailed Hawk	Evergreen/Deciduous trees	Cliff	Migrant
Black-tailed Gnatcatcher	Low Desert Shrub	Lowland Riparian	Low Desert Shrub
Black-throated Gray Warbler	Pinyon-Juniper	Mountain Shrub	Migrant
Grasshopper Sparrow	Grassland	Grassland	Migrant
Sage Sparrow	Shrubsteppe	High Desert Shrub	Low Desert Shrub
Gambel's Quail	Low Desert Shrub	Lowland Riparian	Low Desert Shrub
Cordilleran Flycatcher	Sub-Alpine Conifer	Mountain Riparian	Migrant
Gray Flycatcher	Pinyon-Juniper	High Desert Shrub	Migrant
Golden Eagle	Cliff	High Desert Shrub	High Desert Shrub
Peregrine Falcon	Cliff	Lowland Riparian	Wetlands
Calliope Hummingbird	Mountain shrub	Mountain Shrub	Low Desert Shrub
Sage Thrasher	Shrubsteppe	High Desert Shrub	Low Desert Shrub
Loggerhead Shrike	Grasslands	Shrublands	Grasslands
Swainson's Hawk	Open Grass/Shrublands	Open grass/Shrublands	Migrant
Snowy Plover	Playa	Playa	Playa
Prairie Falcon	Cliff	High Desert Shrub	Agriculture
Great Horned Owl	Mountain Riparian	Lowland Riparian	Agriculture
Burrowing Owl	High Desert Shrub	Grassland	Migrant

⁹ As per the Utah Partners in Flight Avian Conservation Strategy Version 2.0 (Parrish et al., 2002).

3.3.3 Recreation

Recreation activities within the 20 parcels primarily include motorized use. However, visitors to the area of the parcels engage in sightseeing, hiking, and other family oriented activities. Visitors to the area are probably coming from their use of the Knolls Special Recreation Management Area.¹⁰

3.3.4 Visual Resource Management

All of the parcels that are not being deferred are located in areas managed as VRM Class IV under the PE RMP/ROD. A VRM Class IV rating provides for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. The scenic quality is based on a long horizontal landscape. The predominant natural feature is the Lake Bonneville playa and associated mud flats. Human created features include the rail road, interstate, communication rights-of-way and an aviation fly zone.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction

This chapter discusses the environmental consequences of implementing the alternatives described in Chapter 2. Under NEPA, actions with the potential to affect the quality of the human environment must be disclosed and analyzed in terms of direct and indirect effects (whether beneficial or adverse and short or long term) as well as cumulative effects. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by an action and occur later or farther away from the resource but are still reasonably foreseeable. Beneficial effects are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. Adverse effects involve a change that moves the resource away from a desired condition or detracts from its appearance or condition. Cumulative effects are the effects on the environment that result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions.

The No Action alternative (offer none of the nominated parcels for sale), serves as a baseline against which to evaluate the environmental consequences of the Proposed Action alternative (offer nominated parcels for lease sale with additional resource protective measures).

BLM incorporates by reference and tiers to the analysis completed in the following documents: Salt Lake District Oil and Gas Leasing Environmental Analysis Record (EAR) (1975), Proposed Pony Express RMP and Final EIS (9/1988), Draft Pony Express RMP and Draft EIS (5/1988) and the Oil and Gas Leasing Supplemental Pony Express Resource Area and DR (1989). For

¹⁰ The Knolls Special Recreation Management Area was established in 2004 and includes portions of 13 parcels: 9, 10, 12-14, and 22-29 (now deferred). This area offers 35,877 acres of open OHV riding. BLM has invested considerable funds and partnerships in managing 3 miles of maintained roads, 8 kiosks, and 6 public toilets. The Knolls SRMA receives year round use of approximately 60,000 visitors with high use periods associated with state and Federal holidays. The Knolls SRMA is an established recreation destination within northern Utah and is a fee collection site.

each alternative, the environmental effects are analyzed for the resource topics that were carried forward for analysis in Chapter 3.

4.2 Direct and Indirect Impacts

4.2.1 Alternative A – Leasing Under the Existing Land Use Plans

4.2.1.1 Air Quality

The PE RMP/ROD does not have specific restrictions addressing air quality. The PE RMP Record of Decision (SWA Decision 1) states that all actions that involve air resources would be evaluated on a case-by-case basis and would comply with applicable Federal and State air implementation plans. It also states that air quality standards will be maintained or improved in accordance with State and Federal standards, which would include consultation with State agencies on proposed projects that may substantially affect air quality. In this same decision it also states that “management actions on public land will be designed to protect against significant air quality deterioration” (PE RMP SWA Decision 7). However, the specifics of how this will occur are not mentioned.

Under this alternative, the mechanisms to implement appropriate provisions of the State Implementation Plan would not be achieved. Lessees would not receive notice that additional air quality analysis would be required at the APD stage, of internal combustion gas field engine requirements, or required regional ozone formation BMPs. Lease notices would not be applied.

4.2.1.2 Migratory Birds

Section 3.3.2 Migratory Birds, a table identifies the migratory birds that are most likely to inhabit the parcels based on known occurrence and available habitats. As discussed previously, migratory birds receive protections from “take” under the Migratory Bird Treaty Act and Executive Order (EO) 13186.

Construction and development activities can effect migratory birds nesting season from as early as February 15 however activity from May 1 through July 31st pose the greatest impact to migratory birds by disrupting breeding behavior and breeding success. Examples of impacts to nesting migratory birds include nest abandonment, nest failure and chick mortality. Other impacts include breeding or wintering habitat loss and fragmentation from development and human disturbance through noise, dust and construction.

The PE RMP does not have any restrictions addressing migratory birds with the exception of raptors. The RMP imposes timing restrictions for protection of raptor nesting and roosting habitat. This timing limitation restricts exploration, drilling, and other development activity between March 1 and July 15 of every year within 0.5 miles of raptor nesting sites. However, Alternative A would not include the BMPs identified for raptors and their associated habitats (BLM 2006a) and so would not be as protective of these resources as the Proposed Action alternative.

Under this alternative, implementation of avoidance measures, typically within the 200 meter/60-day rule would provide protection where necessary to protect these species during crucial seasonal periods, such as nesting and wintering and in important habitats. Approximately 136 acres of habitat could be disturbed due to well pad and associated road construction. Additional lease notices would not be applied.

4.2.1.3 Recreation

Leasing in parcels within or adjacent to the Knolls SRMA and Bonneville Salt Flats SRMA/ACEC could impact recreational opportunities and experiences within these units. Knolls SRMA is a popular OHV riding area in Utah and the Bonneville Salt Flats host world-renowned landspeed racing and filming activities. Drilling activity within and adjacent to the Knolls SRMA could impact the visitors ability to use the entire SRMA for their recreation pleasure. Drill rigs could impact the filming activities by interfering in the background of a scheduled shot or scene under a special recreation permit on the Bonneville Salt Flats. Approximately, 20 well pads, including roads (136 acres) could possibly be constructed.

Due to the high, year round visitor use, interaction with exploration and drilling activities would occur if the Knolls SRMA parcels were not deferred. Public safety concerns could occur with infrastructure or operational support vehicles. Depending of rider preferences, some may be disturbed by the presence of drill rigs and machinery noise. Some recreation user types may stop coming to the Knolls SRMA. Recreation use could shift or revert back to other areas in Tooele or Utah counties. Depending on well pad location, some users may decrease the number of visits they would make to the Knolls SRMA. Other OHV enthusiast may be unaffected.

Similarly if the Knolls SRMA parcels were not deferred, the toilets, kiosks and other SRMA infrastructure could be avoided by implementing the standard lease terms. Some popular play areas would also be protected by implementation of the steep slope, no surface occupancy stipulation.

If oil was to be produced within the SRMA, trucking traffic would possibly conflict with the OHV riders. Some accidents/collisions and injuries could occur without posting of directional or notification signs. Additional safety instructions or information would need to be posted at the kiosks and future special recreation permit authorizations. Although deferred, 13 well pads, including roads (88 acres) could have occurred within the SRMA. The acreage is a minor component of the SRMA. However, the larger component is the human caused interaction and changed user preferences for the play areas and their use of berms around well pads and roads. OHV enthusiasts would use the road to any well and would explore the sites.

Public safety issues or concerns would not be adequately addressed under a standard leasing category or utilizing the lease notice UT-LN-118 (Knolls SRMA).¹¹ The impact of mineral development on the recreation resource would be high because of the well-used and popular nature of this particular SRMA. Construction of oil and gas wells and pads, access roads, and pipelines could potentially intrude upon recreational areas. A no surface occupancy leasing category would be a viable option but would require a plan amendment. Limitations in size or location of permanent above ground structures within the OHV play areas could prevent injury and interaction of recreating public and the operational aspects of a drill rig/associated infrastructure, however there are no stipulations within the SRMA or RMP to require these

¹¹ Lease notice UT-LN-118, Knolls SRMA, states the following: The lessee/operator is given notice that this lease occurs within the Knolls Special Recreation Management Area (SRMA). This SRMA is established for off highway vehicle riding opportunities. The SRMA contains associated infrastructure and established play areas. Existing and future recreational developments and activities would need to be avoided. Public safety remains a priority. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with section 6 of the lease terms and 43 CFR 3110.1-2.

limitations. Linear aspects (roads, pipelines or power lines) could become structurally unsound due to the number of ATVs crossing them on a frequent basis; thereby creating potential for weaknesses and environmental contamination from breaks. Rehabilitation would be slow due to the arid/saline environment and the possibility of ATVs disturbing seed bed or other structural aspects of contouring/stabilizing a site. Space within the SRMA boundary that would be better suited to the operational aspects of a well, are also frequently selected by individuals or families for camping. The SRMA goals and objectives would be put at a lower priority. BLM's focus to provide a certain recreational experience in this area could degrade over the long term.

4.2.1.4 Visual Resource Management

All of the parcels that are not being deferred are located in areas managed as VRM Class IV under the current land use plan.

Leasing of this area could result in oil and gas exploration. Impacts from exploratory drilling activities would result in short-term temporary impacts to the visual landscape including the introduction of vertical structures into a horizontal landscape.

As seen from existing roads in the area, the short-term level of change to the characteristic landscape would be moderate to high; by employing best practices for oil & gas mitigation, the long-term contrast would be low to moderate, which is consistent with management objectives for the area.

Well pad infrastructure and lighting would not necessarily disrupt an OHV enthusiast. Drilling lighting would be a curiosity from vehicles using Interstate 80. Tower heights and lighting would be limited or controlled.

Overnight campers within the Knolls SRMA would notice the presence of drill rigs and associated infrastructure. Users would see them over long distances due to the geology of the Bonneville Basin. Lights would blend with night traffic associated with the interstate travel. Sites would be reclaimed but would remain noticeable for several years. The reclamation plan would have to account for site succession in an arid environment of the playa.

4.2.2 Alternative B – Proposed Action, Leasing with Additional Protective Measures

4.2.2.1 Air Quality

The act of leasing would not result in changes to air quality. However, should the leases be issued, development of those leases could impact air quality conditions. It is not possible to accurately estimate potential air quality impacts by computer modeling from the project due to the variation in emission control technologies as well as construction, drilling, and production technologies applicable to oil versus gas production and utilized by various operators, so this discussion remains qualitative.

Prior to authorizing specific proposed projects on the subject lease parcels, quantitative computer modeling using project specific emission factors and planned development parameters (including specific emission source locations) may be conducted to adequately analyze direct and indirect potential air quality impacts. In conducting subsequent project specific analysis BLM will follow the policy and procedures of the National Interagency MOU Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions through NEPA, and the FLAG 2010 air quality guidance document. Air quality dispersion modeling which may be required includes impact analysis for demonstrating compliance with the NAAQS, plus analysis of impacts to Air Quality

Related Values (i.e. deposition, visibility), particularly as they might affect regional Class 1 areas (national parks and wilderness areas).

An oil or gas well, including the act of drilling, is considered to be a minor source under the Clean Air Act. Minor sources are not controlled by regulatory agencies responsible for implementing the Clean Air Act. In addition, control technology is not required by regulatory agencies at this point, since the majority of the parcels occur in NAAQS attainment areas. Different emission sources would result from the two site specific lease development phases: well development and well production.

Well development includes emissions from earth-moving equipment, vehicle traffic, drilling, and completion activities. NO_x , SO_2 , and CO would be emitted from vehicle tailpipes. Fugitive dust concentrations would increase with additional vehicle traffic on unpaved roads and from wind erosion in areas of soil disturbance. Drill rig and fracturing engine operations would result mainly in NO_x and CO emissions, with lesser amounts of SO_2 . These temporary emissions would be short-term during the drilling and completion times.

During well production there are continuous emissions from separators, condensate storage tanks, and daily tailpipe and fugitive dust emissions from operations traffic. During the operational phase of the Proposed Action, NO_x , CO, VOC, and HAP emissions would result from the long-term operation of condensate storage tank vents, and well pad separators. Additionally, road dust (PM_{10} and $\text{PM}_{2.5}$) would be produced by vehicles servicing the wells.

Project emissions of ozone precursors, whether generated by construction and drilling operations, or by production operations, would be dispersed and/ or diluted to the extent where any local ozone impacts from the Proposed Action would be indistinguishable from background or cumulative conditions. The primary sources of hazardous air pollutants (HAPs) are from oil storage tanks and smaller amounts from other production equipment. Small amounts of HAPs are emitted by construction equipment. However, these emissions are estimated to be less than 1 ton per year. Based on the negligible amount of project-specific emissions, the Proposed Action is not likely to violate, or otherwise contribute to any violation of any applicable air quality standard, and may only contribute a small amount to any projected future potential exceedance of any applicable air quality standards.

The construction, drilling, completion, testing, and production of an oil and gas well could result in various emissions that affect air quality. Construction activities result in emissions of PM_{10} . Well drilling activities result in engine exhaust emissions of NO_x , CO, and VOC. Completion and testing of the well result in emissions of VOC, NO_x , and CO. Ongoing production results in the emission of NO_x , CO, VOC, and PM_{10} .

Due to the very small level of anticipated development, an emissions inventory (EI) has not been conducted for the August 2014 Oil and Gas Lease Sale. A typical oil and gas well EI is estimated for the purpose of this analysis and is based on the following assumptions:

- Each oil and gas well would cause 6.8 acres of surface disturbance. This acreage includes access.
- Construction activity for each well is assumed to be 10 days. It is further assumed that, based on the acreage disturbed, 4.5 days would be spent in well pad construction and 5.5 days would be spent in road and pipeline construction.
- Control efficiency of 25% for dust suppression would be achieved as a result of compliance with Utah Air Quality regulation R307-205.

- Post construction particulate matter (dust) emissions are likely to occur on a short term basis due to loss of vegetation within the construction and staging areas. Assuming appropriate interim reclamation, these emissions are likely to be minimal to negligible and will not be considered in this EA.
- Drilling operations would require 14 days.
- Completions and testing operations would require 3 days.
- Off road mobile exhaust emissions from heavy equipment during construction activities and on road mobile emissions would not be considered as they are dispersed, sporadic, temporary, and not likely to cause or contribute to exceedences of the NAAQS.

If exploration occurs, short-term impacts would be stabilized or managed rapidly (within two to five years), and long-term impacts are those that would substantially remain for more than five years.

An air quality best management practice (BMP) which discusses the amounts of NO_x emission per horse-power hour based on internal combustion engine size, would be attached to all parcels. A lease notice (UT-LN-101) would be attached to all leases and would consist of the following provisions:

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO_x per horsepower-hour.

Table 6: Emissions Estimate

	Construction Emissions (Tons)	Drilling Emissions (Tons)			Completions Emissions (Tons)				Ongoing Production Emissions (Tons/year)			
	PM ₁₀	NO _x	CO	VOC	VOC	NO _x	CO	PM ₁₀	NO _x	CO	VOC	PM ₁₀
Typical Well	0.34	13.31	1.83	0.23	0.85	0.07	0.07	0.00	0.01	0.01	6.44	0.00000
Sub Total	0.34	13.31	1.83	0.23	0.85	0.07	0.07	0.00	0.01	0.01	6.44	0.00000
					PM ₁₀	NO _x	CO	VOC				
Activity Emissions (Total emissions for drilling and completion the well)					0.34	13.37	1.89	1.08	Tons			
Production Emissions (Ongoing annual emissions for the well)					0.00000	0.01	0.01	6.44	tpy			

Emission factors for activities of the proposed action were based on information contained in the EPA's Emission Factors & AP 42, Volume I, Fifth Edition (EPA.1995), available at: <http://www.epa.gov/ttn/chief/ap42/index.html>. The production emissions from oil storage tanks was estimated based on the emission factor contained in the Colorado Department of Public

Health and Environment PS Memo 05-01, Oil & Gas Atmospheric Condensate Storage Tank Batteries Regulatory Definitions and Permitting Guidance (CDPHE 2009), available at: <http://www.cdphe.state.co.us/ap/down/ps05-01.pdf>.

Based on the emissions estimates contained in Table 6, and considering the location of the proposed leasing relative to population centers and Class 1 areas, substantial air resource impacts are not anticipated as a result of this leasing action, and no further analysis or modeling is warranted. Emissions resulting from the August 2014 Oil and Gas Lease Sale are not likely to result in major impacts to air quality nor are they likely to cause a violation of the NAAQS.

Best management practices (BMP) would be developed to address oil and gas development emissions that may have on regional ozone formation and would be required at the time of development on any of the leases (UT-LN-96). The regional ozone formation BMPs are:

- All internal combustion equipment would be kept in good working order.
- Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer.
- Open burning of garbage or refuse would not occur at well sites or other facilities.
- Drill rigs would be equipped with Tier II or better diesel engines.
- Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater.
- Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers.
- During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.
- Well site telemetry would be utilized as feasible for production operations.
- Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines <300HP; and 1g NOx/bhp-hr for engines >300HP.

Additional air quality control measures may be warranted and imposed at the APD stage (UT-LN-102). These control measures are dependent on future regional modeling studies, other analysis or changes in regulatory standards.

4.2.2.2 Migratory Birds

The migratory birds identified in the table in Section 3.3.2 could be impacted in a similar way as described in section 4.2.1.2 under Alternative A. Construction and development activities can effect migratory birds nesting season from as early as February 15; however, activity from May 1st through July 31st pose the greatest impact to migratory birds by disrupting breeding behavior and breeding success. Examples of impacts to nesting migratory birds include nest abandonment, nest failure and chick mortality. Other impacts include breeding or wintering habitat loss and fragmentation from development and human disturbance through noise, dust and construction. This alternative includes an additional lease notice (UT-LN-45) to inform the lessee that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in priority habitats. Surveys would focus on identified priority bird species in Utah. Based on the field survey, the authorized officer in coordination with the biologist will determine appropriate buffers and timing limitations necessary to protect the bird under the above law and EO.

This alternative also would include adding a lease notice (UT-LN-44) for the protection of raptors wherein surveys would be required whenever disturbances and/or occupancy is proposed in association with oil and gas exploration and development within potential raptor protection buffer areas. Appropriate buffers and timing limitations would be determined based on the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (Romin and Muck 2002). Construction activities would be delayed until monitoring shows that fledglings have left the nests. Some nests would be avoided using standard lease stipulations. Specifically, burrowing owls, golden eagles, and prairie falcons would need additional protection from surface disturbing activities than is allowed for under the Alternative A – Leasing Under the Existing Land Use Plans. Similar to migratory birds, monitoring would also determine if burrowing owls, golden eagles, and prairie falcons are using construction sites. BLM retains discretion to modify the surface use plan of operation. Control measures afforded through the air quality mitigation also benefit migratory birds and their habitats.

These measures would provide greater protection than is currently mandated by the PE RMP and would comply with the non-statutory regulation of the Migratory Bird Treaty Act and EO 13186. Lease notices for golden eagle (UT-LN-40), migratory birds (UT-LN-45) and raptors (UT-LN-44) would be attached to all of the leased parcels. Special status species would be afforded protection from surface disturbing activities by the application of a notice (UT-LN-49) on all parcels.

4.2.2.3 Recreation

Impacts to the recreation program would be similar to those identified in Alternative A. Although deferred, recreational experiences and opportunities could be affected by oil and gas related construction and development activities within the Knolls SRMA. The Knolls SRMA is an “OPEN” OHV riding area. The purpose of this open riding area is dispersed motorized use for recreational experiences and opportunities. The recreation experience and settings are vulnerable to modifications in the natural environment and restrictions. Development could alter the ability for the landscape to support appropriate recreational opportunities and corresponding objectives in accordance with the SRMA plan.

Additional protective measures would be needed to minimize potential injury to recreational users from surface disturbance or equipment associated with leasing activity. Additional coordination with a lease holder would be used to facilitate public safety at the APD stage. Safety concerns would remain as described in Section 4.2.1.3.

4.2.2.4 Visual Resource Management

Impacts to the visual resources would be similar to those identified in Alternative A. Due to the parcels occurring within VRM Class IV categories, additional protective measures are not warranted. However, visual resource management may benefit from the mitigating measures afforded by the lease notice developed for the Utah Test and Training Range (UT-LN-84). Towers would be limited to heights below 99 feet and surfaces could not be reflective. An abandoned well or reclaimed site would be noticeable for several years and is dependent on annual precipitation and reclamation methods.

4.2.3 Alternative C – No Action

This alternative (not to offer any of the nominated parcels for sale) may not meet the purpose and need for agency action. All parcels may be subject to drainage of Federal reserves by development on adjacent state or private leases.

Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased lands. Lease stipulations and notices would not be required on any parcel under this alternative.

4.2.3.1 Air Quality

The No Action alternative would prevent future potential impacts relating to lease operations. Regional air quality would remain the same. Changes to air quality would not be due to oil and gas management activities on the parcels contained in Appendix A.

4.2.3.2 Migratory Birds

The No Action alternative would prevent future potential impacts relating to lease operations at this time. Use of the area by migratory birds would not change. OHV and recreation activity would continue at its present rate and disturbances to migratory birds would not be associated with oil and gas exploration and development.

4.2.3.3 Recreation

The No Action alternative would prevent future potential impacts relating to lease operations at this time. Recreation use within and adjacent to the Knolls SRMA would not change. Opportunity for user conflicts with oil and gas actions would not occur. Rider safety would not be placed at risk due to the presence of oil and gas infrastructure.

4.2.3.4 Visual Resource Management

The No Action alternative would prevent future potential impacts relating to lease operations at this time. The existing horizontal and vertical structure on the landscape would not change.

4.3 Cumulative Impacts

A cumulative impact is defined in Council on Environmental Quality (CEQ) regulations (40 CFR §1508.7) as — the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively major actions taking place over a period of time. Past and present actions and reasonably foreseeable future actions with the potential to contribute to cumulative effects are discussed below followed by an analysis of cumulative effects. All resource values addressed in Chapter 3 have been evaluated for cumulative effects. If, through the implementation of mitigation measures or project design features, no net effect to a particular resource results from an action, then no cumulative effects result.

A variety of activities, such as sightseeing, camping, and hunting, have occurred and are likely to continue to occur near or within some or all of the nominated parcels; these activities likely result in negligible impacts to resources because of their dispersed nature. Other activities, such as, communication sites, rail road tracks, filming, and the occasional wildland fire, have also occurred within some or all of the nominated parcels and are likely to occur in the future. These

types of activities are likely to have a greater impact on resources in the project area because of their more concentrated nature. Because these activities are occurring within the nominated parcel boundaries, they have the potential to contribute to cumulative effects.

The cumulative impacts as described in the PE RMP are incorporated by reference to Chapter 4. The proposed action would contribute to these cumulative impacts by making 20 parcels available for lease sale and mineral development, with the potential for future surface disturbance should the leases be developed. It is assumed that the proposed action would add one well pad with road on each lease. The No Action alternative would not contribute any cumulative impacts. The past, present, and foreseeable future actions with the potential to contribute to surface disturbance include development of new and existing mineral rights or realty actions (for example, pipeline or road rights of way) or the continuation of mineral extraction activities.

4.3.1 Air Quality

The Cumulative Impact Analysis Area (CIAA) for air quality is northern Utah. Based on the relatively minor levels of emissions associated with this proposed development, and the application of these BMP's, it is unlikely emissions from any subsequent development of the proposed leases would contribute to regional ozone formation in the project area, nor is it likely to contribute or cause exceedences of any NAAQS, including those exceedences already occurring within the adjacent ozone non-attainment areas of Davis and Salt lake counties. Other emission contributors would continue at present rates such as construction, urban development, and personal vehicle use along the Wasatch Front. Other exploratory wells have been abandoned within Tooele County.

4.3.2 Migratory Birds

General cumulative impacts may include a minor/incremental loss of habitat, habitat fragmentation, and disruption or alteration of seasonal migration routes.

The CIAA includes northern Tooele County. Impacts in this area that are occurring and will continue to occur are: dispersed recreational use, motorized vehicles, fire and invasive plant species are the major threats to wildlife caused by human disturbance and creating habitat fragmentation. The proposed project would have very minimal impacts to migratory birds cumulatively in this area because of the very small RFD. There would potentially be additional disturbance to habitat yet not enough to effect the population of any migratory bird.

4.3.3 Recreation

General cumulative impacts may include temporary loss of acreage nearby the Knolls SRMA associated with any subsequent development and depending on the location of the proposed action, recreation activities would be impacted to varying degrees. The extensive recreational management area (ERMA) of northern Tooele County would be substantially unaffected. Recreation trends would continue.

4.3.4 Visual Resource Management

Cumulative impacts would result in short-term temporary impacts to the visual landscape including the introduction of vertical structures into a horizontal landscape.

As seen from existing roads in the area, the short-term level of change to the characteristic landscape would be moderate to high; by employing best practices for oil & gas mitigation, the long-term contrast would be low to moderate, which is consistent with management objectives

for the area. Well pad construction would likely blend with the existing uses in northern Tooele County including maintenance of Interstate-80 and management of larger facilities at Intrepid Potash and Aragonite and Wendover City.

5.0 CONSULTATION AND COORDINATION

5.1 Introduction

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. The Interdisciplinary Team Checklist provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

5.2 Persons, Groups, and Agencies Consulted

Table 7: List of all Persons, Agencies and Organizations Consulted for Purposes of this EA.

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
National Park Service	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on November 13, 2013. A map and GIS shapefiles were sent to the NPS on December 17, 2013 via email. Comments or concerns were not expressed.
National Trails Intermountain Region Branch Office	Coordinated with as national trails program partner.	An email was sent from the SLFO to several trail organizations including the NPS on January 13, 2014. Parcels that intersect the CNHT or within NHT planning area were deferred. A follow-up email was sent to NPS and trail partner organizations on 5/6/2014.
United States Fish and Wildlife Service	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on November 13, 2013. There are no listed species present in the area of the parcels. SLFO is concluding that there is no impact.
United States Forest Service	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on November 13, 2013. Comments or concerns were not expressed.
Public Lands Policy Coordination Office	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on November 13, 2013. An e-mail with GIS shape-files was sent to DWR to satisfy the requirements of IM-2012-43. SLFO received a letter (dated 2/13/2014) of support and specific wildlife habitat comments. Additional comments were not received during the EA comment period.
Utah Division of Wildlife Resources	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on November 13, 2013. An early email was sent on October 30,

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
		2013 transmitting the corresponding shapefiles. The BLM received a comment letter on February 18, 2014 via the PLPCO. Additional comments were not received during the EA comment period.
State Institutional Trust Lands Administration	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on November 13, 2013. Comments or concerns were not expressed.
Hill Air Force Base (HAFB) Utah Test and Training Range (UTTR)	Coordinated with as leasing program partner.	The preliminary list and corresponding shapefiles were forwarded to HAFB/UTTR on November 7 and November 14, 2013. Comments were received from the HAFB/UTTR on February 4, 2014. SLFO met with leadership from HAFB, UTTR and Dugway on March 24, 2014. On March 28, 2014, the Utah State Office contacted the UTTR Commander via a letter which discussed the UTTR lease notice (UT-LN-84).
State Historic Preservation Office	Consultation as required by NHPA (16 USC 470)	Consultation is ongoing. Consultation with the SHPO was initiated via letter on April 2, 2014. The SHPO requested additional information on April 11, 2014. SLFO sent a second letter to the SHPO that the proposed undertaking will have a No Adverse Effect determination (per 36CFR800.5(b)).
Confederated Tribes of the Goshute Reservation, Skull Valley Band of the Goshute Tribe, Paiute Tribe, Ute Indian Tribe, Northwestern Band of Shoshoni Nation, Western Shoshone and Eastern Shoshone.	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1996) and NHPA (16 USC 470)	An informational letter on the project that invited Tribal consultation was sent to the Tribes on January 14, 2014. A response letter was received from the Paiute Tribe of Utah on February 7, 2014 stating the Tribe had no concerns for this project. No other comments were received and none of the Tribes requested consultation on the project. Coordination and consultation will continue up until the lease auction, at the request of any Tribe.

5.3 Summary of Public Participation

Section 1.7 Identification of Issues of this EA, describes the public participation process used to identify the issues that are analyzed. The public participation process included a notification posted on the ENBB (<https://www.blm.gov/ut/enbb>) and 30 day review and comment period (3/21/2014-4/21/2014). SLFO did not receive comments from the public on the EA or the unsigned FONSI.

A letter was received on February 18, 2014, from the Office of the Governor, Public Lands Policy Coordination Office (PLPCO), supporting BLM's August 2014 Oil and Gas lease sale. The letter discussed comments and recommendations concerning various wildlife resources including sage-grouse, pygmy rabbit, mule deer, elk, Bonneville cutthroat trout, white-tailed prairie dog and several species of raptors and the associated parcels that each resource was documented within. All of the parcels containing the wildlife resources are already being deferred with the exception of two, parcels 13 and 29, and they contain burrowing owls. The UDWR through the PLPCO, recommends raptor surveys be completed if construction activity is planned during courtship, nesting and/or fledging times within these parcels. SLFO would follow the recommendations made by the UDWR if any surface activity is planned.

The BLM utilized and coordinated the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f) pursuant to 36 CFR 800.2(d) (3). The information about historic and cultural resources within the area potentially affected by the proposed project/action/approval will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. The BLM will consult with Indian tribes on a government-to-government basis in accordance with Executive Order 13175 and other policies, if requested by any Tribe. If Tribal concerns are identified, including impacts on Indian trust assets and potential impacts to cultural resources, they will be given due consideration. Federal, State, and local agencies, along with tribes and other stakeholders that may be interested in or affected by the proposed project/action/approval were invited to participate in the scoping process.

5.3.1 Modifications Based Public Comment and Internal Review

Public comments were not received during 30 day review and comment period that ended on April 21, 2014.

The internal review identified necessary corrections or clarifications to this EA. These modifications include:

1. Corrections to grammar, sentence structure, and formatting were made throughout the EA. In general, these changes were made without further clarification. Examples include: updates to the Table of Contents, changes in font size, changes in verb tense and style or insertion of footnotes. The March 2014 date of the title page and at each page header was changed to May 2014 to distinguish from the March 2014 version of the EA.
2. Sections 1.2 and 2.5: Additional information is added regarding the deferral of 13 parcels located within the Knolls SRMA for public safety. Corresponding parcel number and acreage changes are made at sections: 1.2, 2.1.2, 2.2, 2.3, 3.2, 3.3.3, 4.2.1.3, and 4.3.3.
3. Section 1.5: The Knolls Recreation Area Management Plan (7/2004) and its FONSI/DR for EA UT-020-2003-0101 are added to the list of documents that influence the scope of this EA.
4. Section 2.1.2: The surface disturbance analysis assumption calculation based on 33 wells (224.4 acres) was redone to reflect 20 wells (136 acres). In addition, the March 2014 version of the EA double counted the surface disturbance due to road construction. The duplication was removed from the calculation.
5. Section 2.2 and 2.3: Each alternative would also include the deferral of the parcels listed in Appendix C.

6. Section 2.3: Because the Knolls SRMA parcels are deferred, the additional conservation measure included in Table 2 for UT-LN-118, Knolls SRMA, is deleted.
7. Section 2.5: Discussion regarding lands with wilderness characteristics was deleted.
8. Section 3.3: The general setting narrative was changed to reflect the deferral of parcels located within the Knolls SRMA.
9. Section 4.2.1.2: The total acres of habitat that could be disturbed was changed from 283.8 acres to 136 acres (as described in item 4).
10. Section 4.2.1.3: Additional information is added regarding the impact of public safety within the SRMA.
11. Section 5.2: Edits were made to findings and conclusions column within Table 7. Changes were made to the paragraph describing feedback from UDWR through the PLPCO's office.
12. Section 5.3.1: Updates to the EA are captured here for ease of reference.
13. Section 6.1: The Recreation Area Management Plan for Knolls Special Recreation Management Area and corresponding EA are added to the list of references.
14. Appendices A, B and C: Thirteen parcels (9, 10, 12-14, and 22-29) were deferred due to their location within the Knolls SRMA. Deferred parcels are not included in Appendix A. Additional discussion for the deferral is contained in sections 1.2 and 2.5. Corresponding edits were made to Appendix A and C. Edits were made to the deferral rationale for parcels 143, 145, 146, 158, and 162 to clarify that the Laketown Canyon ACEC is closed to oil and gas leasing activity as per the Randolph MFP.
15. Appendix A: Stipulations UT-S-104 (Slopes), UT-S-228 (Crucial Pronghorn Fawning) and UT-S-265 (Crucial Raptor Nesting) and notices UT-LN-19 (Crucial Pronghorn Habitat), and UT-LN-118 (Knolls SRMA) were deleted from the corresponding table summaries. These measures would not be applied because of the corresponding parcels were deferred.
16. Appendix B: Maps of the parcels near Interstate-80 (East and West) were redrawn to depict the 20 parcels going forward and the deferral of the parcels that intersect the Knolls SRMA.
17. Appendix D: Edits were made to the rationale column for cultural resources, lands/access, migratory birds, soils wastes (hazardous/solids) and wildlife. The checklist was signed by the environmental coordinator and the SLFO manager.

5.4 List of Preparers

Table 8: The Preparers of This Environmental Analysis.

Name	Title	Responsible for the Following Section(s) of this Document
Ray Kelsey Roxanne Tea	Outdoor Recreation Planner	Recreation; Visual Resources; Lands with Wilderness Characteristics; National Historic Trails
Michael Sheehan	Archaeologist	Cultural Resources; Native American Religious Concerns
Chris Bryan	Wildlife Biologist	Fish and Wildlife, Threatened, Endangered, Candidate and Sensitive Species (Flora and Fauna); Migratory Birds
Larry Garahana	Geologist	Project Lead

Name	Title	Responsible for the Following Section(s) of this Document
Pam Schuller	Environmental Coordinator	NEPA compliance
Diana Hawks	Environmental Coordinator	NEPA compliance

Refer also the interdisciplinary team members identified on the checklist (Appendix D).

6.0 REFERENCES, ACRONYMS AND APPENDICES

6.1 References Cited

Bureau of Land Management (BLM). 1975. Salt Lake District Oil and Gas Leasing Environmental Analysis Record (EAR). Salt Lake City, Utah: Salt Lake Field Office.

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6.2 List of Acronyms

APD	Application for Permit to Drill	PLPCO	Public Lands Policy Coordination Office
BLM	Bureau of Land Management	RFAS	Reasonably Foreseeable Action Scenario
BMP	Best Management Practice	RFD	Reasonably Foreseeable Development
BCR	Bird Conservation Region	ROD	Record of Decision
CFR	Code of Federal Regulations	ROW	Right of Way
CIAA	Cumulative Impact Analysis Area	RMP	Resource Management Plan
COA	Condition of Approval	S	Stipulation
CWCS	Comprehensive Wildlife Conservation Strategy	SHPO	State Historic Preservation Office
DR	Decision Record	SITLA	State Institutional Trust Lands Administration
EA	Environmental Assessment	SLFO	Salt Lake Field Office
EAR	Environmental Analysis Record	SUPO	Surface Use Plan of Operations
EIS	Environmental Impact Statement	TCP	Traditional Cultural Property
ENBB	Environmental Notification Bulletin Board	UDAQ	Utah Division of Air Quality
EOI	Expression of Interest	UDWR	Utah Division of Wildlife Resources
EPA	Environmental Protection Agency	USFS	United States Forest Service
ESA	Endangered Species Act	USFWS	United States Fish & Wildlife Service
FFO	Fillmore Field Office		
FLPMA	Federal Land Policy and Management Act	USC	United States Code
FONSI	Finding of No Significant Impact	UTSO	Utah State Office
GIS	Geographical information System	UXO	Unexploded Ordnances
IDPR	Interdisciplinary Parcel Review	WDD	West Desert District
IM	Instruction Memorandum	WO	Washington Office
LN	Lease Notice		
LWC	Lands with Wilderness Characteristics		
MS	Mineral Survey		
MBTA	Migratory Bird Treaty Act		
MMRP	Military Munitions Response Program		
MOU	Memorandum of Understanding		
NCLS	Notice of Competitive Lease Sale		
NEPA	National Environmental Policy Act		
NHPA	National Historic Preservation Act		
NHT	National Historic Trail		
NRHP	National Register of Historic Places		
NSO	No Surface Occupancy		
OSHA	Occupational Safety and Health Act		

6.3 Appendices

Appendix A, Preliminary Oil and Gas Lease Sale List

Appendix B, Maps of Parcels

Appendix C, Deferred Lands List

Appendix D, Interdisciplinary Team Checklist

APPENDIX A – PRELIMINARY OIL AND GAS LEASE SALE LIST

In addition to the parcel specific Stipulations and Notices listed below, the stipulations and notices presented in this table would be applied to all parcels:

Stipulations	Notices
WO IM 2005-003 (Cultural Resources)	UT-LN-40: Golden Eagle Habitat
WO IM 2002-174 (Endangered Species Act)	UT-LN-44: Raptors
	UT-LN-45: Migratory Birds
	UT-LN-49: Utah Sensitive Species
	UT-LN-52: Noxious Weeds
	UT-LN-96: Air Quality (Mitigation Measures)
	UT-LN-101: Air Quality
	UT-LN-102: Air Quality Analysis
	UT-LN-119: Unexploded Ordnances

UT0814 – 037

T. 1 S., R. 14 W., Salt Lake

Secs. 25, 26 and 35: All.

1,920.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS**NOTICES**

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 038

T. 1 S., R. 14 W., Salt Lake

Secs. 27, 28, 33 and 34: All.

2,560.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 039

T. 1 S., R. 14 W., Salt Lake
Secs. 29, 30 and 31: All.
1,879.00 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 040

T. 2 S., R. 14 W., Salt Lake
Secs. 1, 11 and 12: All.
1,919.60 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 041

T. 2 S., R. 14 W., Salt Lake
Secs. 3, 9 and 10: All.
1,918.72 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 042

T. 2 S., R. 14 W., Salt Lake
Secs. 5, 6 and 7: All.
1,882.53 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 043

T. 2 S., R. 14 W., Salt Lake
Secs. 8, 17 and 18: All.
1,904.28 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 044

T. 2 S., R. 14 W., Salt Lake
Secs. 13, 14 and 15: All.
1,920.00 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 052

T. 1 S., R. 15 W., Salt Lake

Sec. 25: All;

Sec. 26: E2;

Sec. 35: E2.

1,280.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 053

T. 1 S., R. 15 W., Salt Lake

Secs. 27, 28, 33 and 34: All.

2,560.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 054

T. 1 S., R. 15 W., Salt Lake

Secs. 29, 30 and 31: All.

2,074.20 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 055

T. 1 ½ S., R. 15 W., Salt Lake

Secs. 31, 33, 34 and 35: All.

1,814.89 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

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UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 056

T. 2 S., R. 15 W., Salt Lake

Sec. 1: All;

Sec. 11: E2;

Secs. 12 and 13: All;

Sec. 14: E2.

2,559.12 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

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UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 057

T. 2 S., R. 15 W., Salt Lake

Secs. 3, 10 and 15: All.

1,918.64 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 058

T. 2 S., R. 15 W., Salt Lake
Secs. 4, 5 and 6: All.
1,971.74 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 059

T. 2 S., R. 15 W., Salt Lake
Sec. 7: Lots 1-6, NE, E2NW, NESW, N2SE;
Sec. 8: N2, N2S2;
Sec. 9: All.
1,640.75 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-52: Noxious Weed
UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)
UT-LN-96: Air Quality (Mitigation Measures)
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-119: Unexploded Ordnances

UT0814 – 060

T. 2 S., R. 15 W., Salt Lake

Sec. 17: W2;

Sec. 18: All.

1,015.32 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 067

T. 1 S., R. 16 W., Salt Lake

Secs. 25, 26 and 35: All.

1,920.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

UT-LN-84: Utah Test and Training Range (UTTR), Military Operations Area (MOA)

UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 068

T. 2 S., R. 16 W., Salt Lake

Sec. 1: All;

Sec. 11: N2;

Sec. 12: N2.

1,285.72 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-52: Noxious Weed

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UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

UT0814 – 069

T. 2 S., R. 16 W., Salt Lake

Secs. 13 and 14: All.

1,280.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATIONS

NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

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UT-LN-96: Air Quality (Mitigation Measures)

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-119: Unexploded Ordnances

Stipulation Summary Table

<p>Cultural Resources WO IM 2005-003</p>	<p>CULTURAL RESOURCE PROTECTION STIPULATION</p> <p>This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.</p>
<p>Endangered Species Act WO IM 2002-174</p>	<p>THREATENED AND ENDANGERED SPECIES ACT STIPULATION</p> <p>The lease area may now or hereafter contain plants, animals or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. 1531 et seq. including completion of any required procedure for conference or consultation.</p>

Notice Summary Table

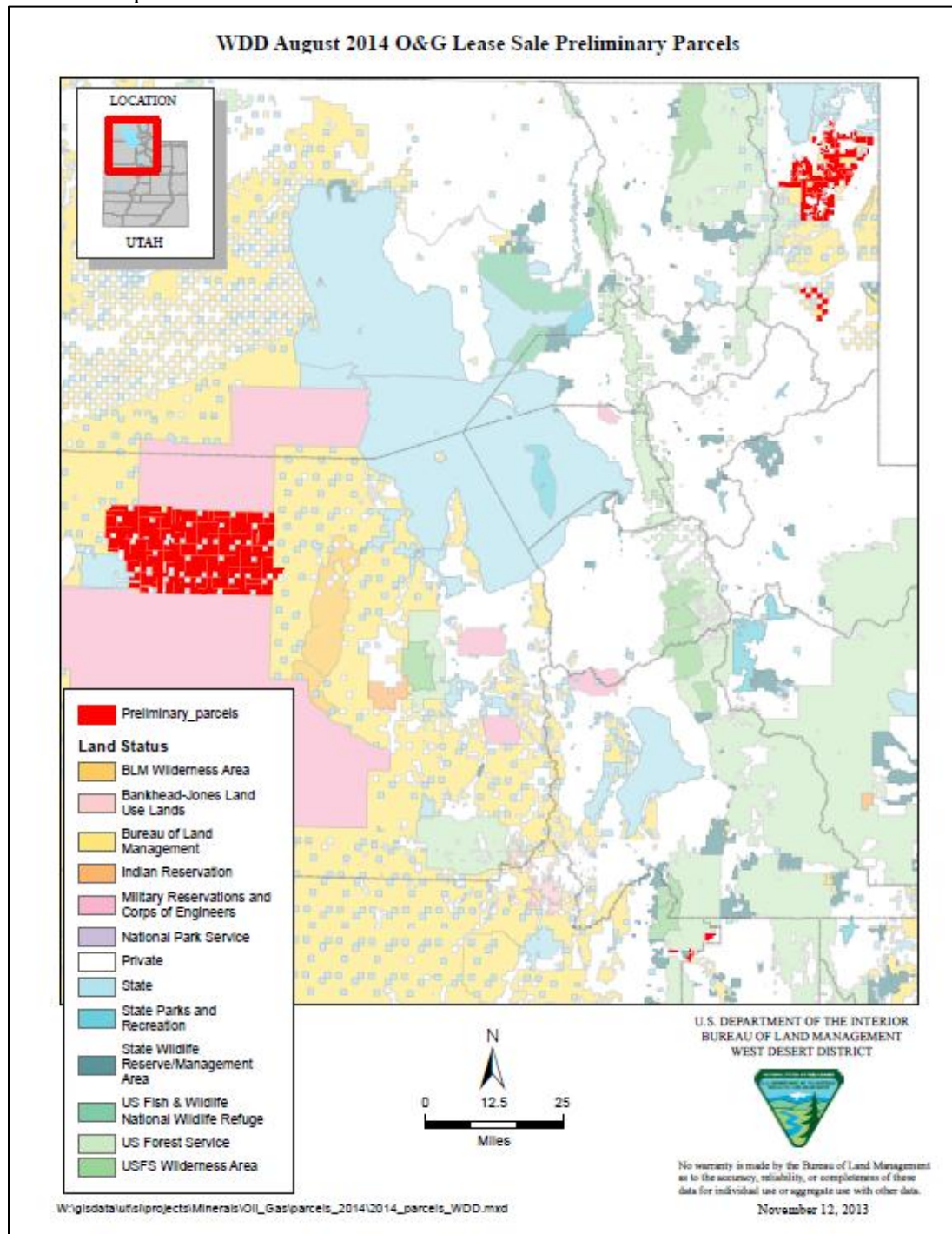
<p>UT-LN-40</p>	<p>GOLDEN EAGLE HABITAT</p> <p>The lessee/operator is given notice that lands in this lease have been identified as containing Golden Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Golden Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.</p>
<p>UT-LN-44</p>	<p>RAPTORS</p> <p>Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. Any indication that activities are adversely affecting the raptor and/or its' young the on-site monitor will suspend activities and contact the BLM Authorized Officer immediately. Construction may occur within the buffers of inactive nests. Construction activities may commence once monitoring of the active nest site determines that fledglings have left the nest and are no longer dependent on the nest site. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.</p>
<p>UT-LN-45</p>	<p>MIGRATORY BIRD</p> <p>The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the Bureau of Land Management. Based on the result of the field survey, the authorized officer will determine appropriate</p>

	buffers and timing limitations.
UT-LN-49	<p style="text-align: center;">UTAH SENSITIVE SPECIES</p> <p>The lessee/operator is given notice that no surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is also given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1-2.</p>
UT-LN-52	<p style="text-align: center;">NOXIOUS WEEDS</p> <p>The lessee/operator is given notice that lands in this lease have been identified as containing or are near areas containing noxious weeds. Best management practices to prevent or control noxious weeds may be required for operations on the lease.</p>
UT-LN-84	<p style="text-align: center;">UTAH TEST AND TRAINING RANGE MILITARY OPERATIONS AREA (MOA)</p> <p>All or portions of this parcel are located underneath Utah Test and Training Range (UTTR) Airspace. The airspace is comprised of Military Operations Areas and Restricted Airspace. Prior to approval of any operations on this lease you must contact the Headquarters Utah Test and Training Range (UTTR) Airspace Office, 6066 Cedar Lane, Suite 6B, Hill Air Force Base, UT 84056-5812 or (801-777-9384) for coordination concerning the following requirements:</p> <ul style="list-style-type: none"> • The MOA air space starts at 100 ft. above ground surface. No towers or rigs may be installed in excess of 99 ft. above ground level (AGL) without UTTR coordination. • Under Restricted Airspace no permanent construction above 99 feet AGL is allowed. • Lease sites may not be permanently occupied Monday through Thursday 7:00 AM to 11:59 PM and Friday 7:00 AM to 6:00 PM or the first Saturday of each month 8:00 AM to 5:00 PM. • There can be no limitations on current Chaff (released above 100 ft. AGL) and Flares (released above 2,000 ft. AGL). • No emissions or electronic counter measures (ECM) conflicts/limitations are allowed. A total frequency review will be required to ensure there is no conflict. • No noise limitations are allowed. • No limitations on live weapon over-flight will be permitted. • No permanent lights or polished reflective surface that would reflect light and increase any thermal temperature are allowed. • The U.S. Government will not be liable for wildfire, noise, or any other damage. <p>Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.</p>
UT-LN-96	<p style="text-align: center;">AIR QUALITY MITIGATION MEASURES</p> <p>The lessee is given notice that the Bureau of Land Management (BLM) in coordination with the U.S. Environmental Protection Agency and the Utah Department of Air Quality, among others, have developed the following air quality mitigation measures that may be applied to any development proposed on this lease. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from oil and gas development (including but not limited to construction, drilling, and production) on regional ozone formation.</p> <p>All internal combustion equipment would be kept in good working order.</p> <p>Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer.</p> <p>Open burning of garbage or refuse would not occur at well sites or other facilities.</p> <p>Drill rigs would be equipped with Tier II or better diesel engines.</p> <p>Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by</p>

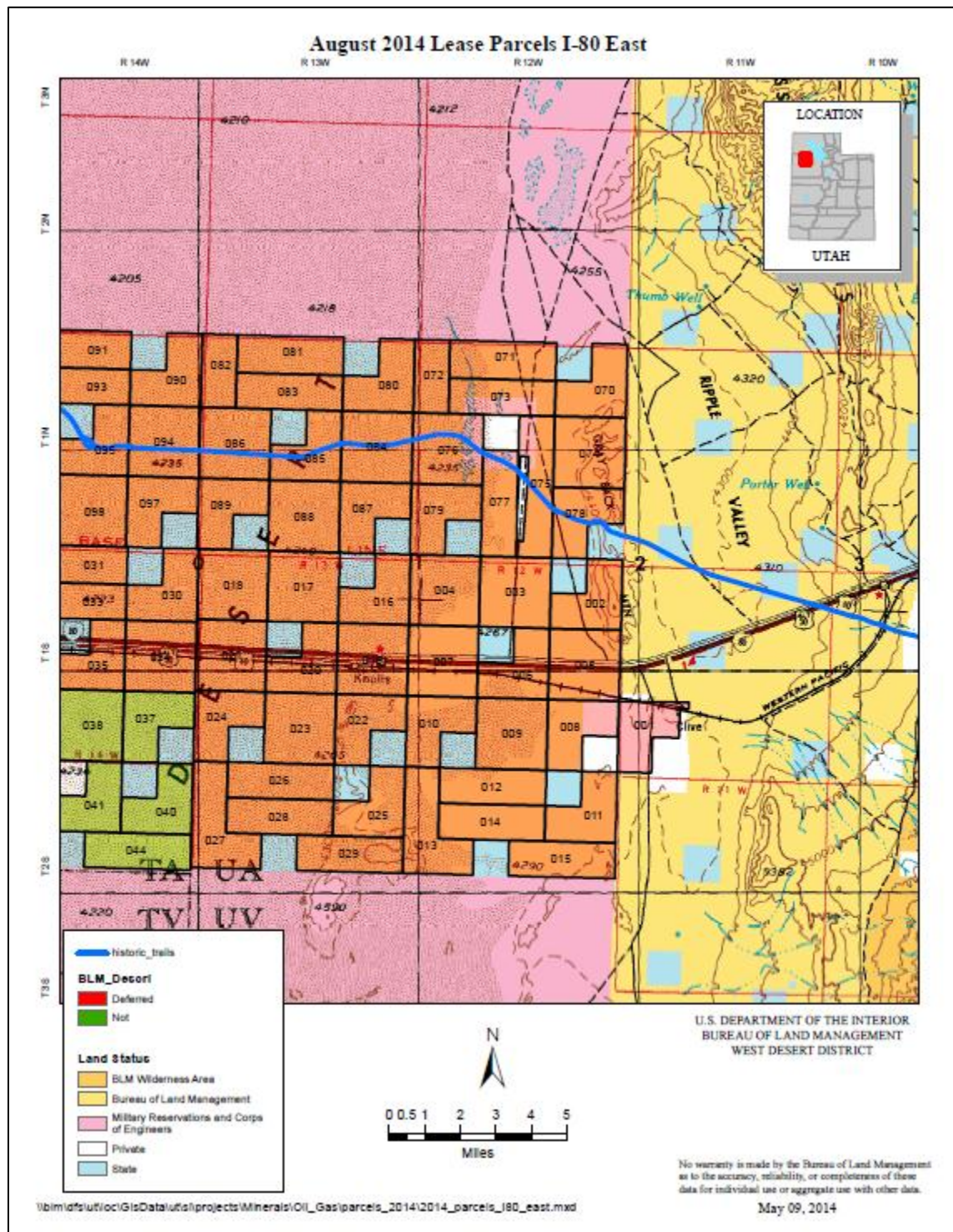
	<p>routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater.</p> <p>Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers.</p> <p>During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.</p> <p>Well site telemetry would be utilized as feasible for production operations.</p> <p>Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines <300HP; and 1g NOx/bhp-hr for engines >300HP.</p> <p>Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate based on the size of the project and magnitude of emissions.</p>
UT-LN-101	<p style="text-align: center;">AIR QUALITY</p> <p>All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. AND All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.</p>
UT-LN-102	<p style="text-align: center;">AIR QUALITY ANALYSIS</p> <p>The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling and/or photochemical modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.</p>
UT-LN-119	<p style="text-align: center;">UNEXPLODED ORDNANCE</p> <p>The lessee/operator is given notice that this lease has been identified as containing unexploded ordnance. The location and management of unexploded ordnance is the responsibility of Army Corp of Engineers. Safety considerations would remain a priority. Additional survey and coordination with Explosive Ordnance Demolition team at Hill Air Force Base would be required during exploration, drilling and other development activities. Modifications to the Surface Use Plan of Operations may be required in accordance with Section 6 of the lease terms and 43CFR3101.1-2.</p>

APPENDIX B – MAPS

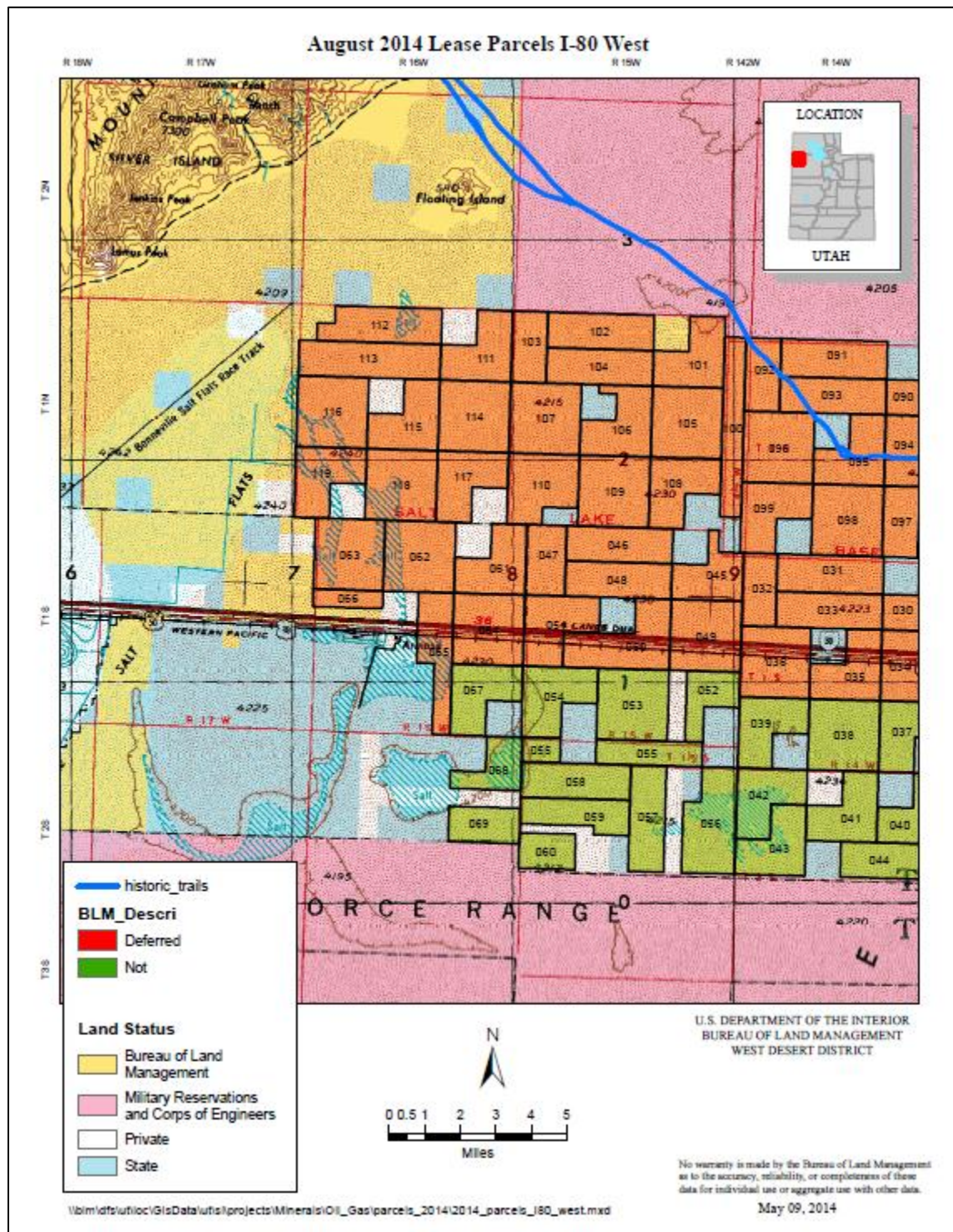
Overall Map



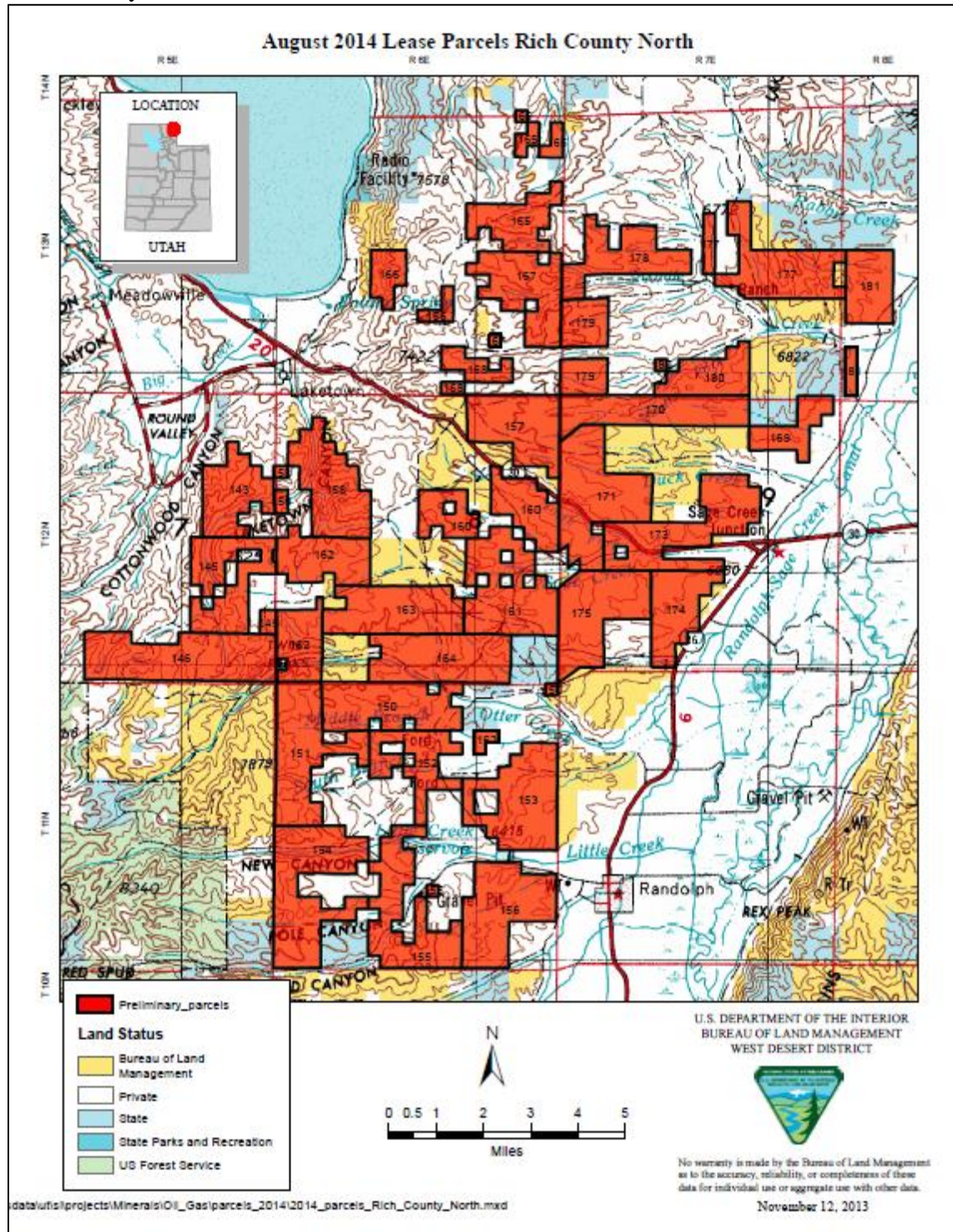
I-80 East



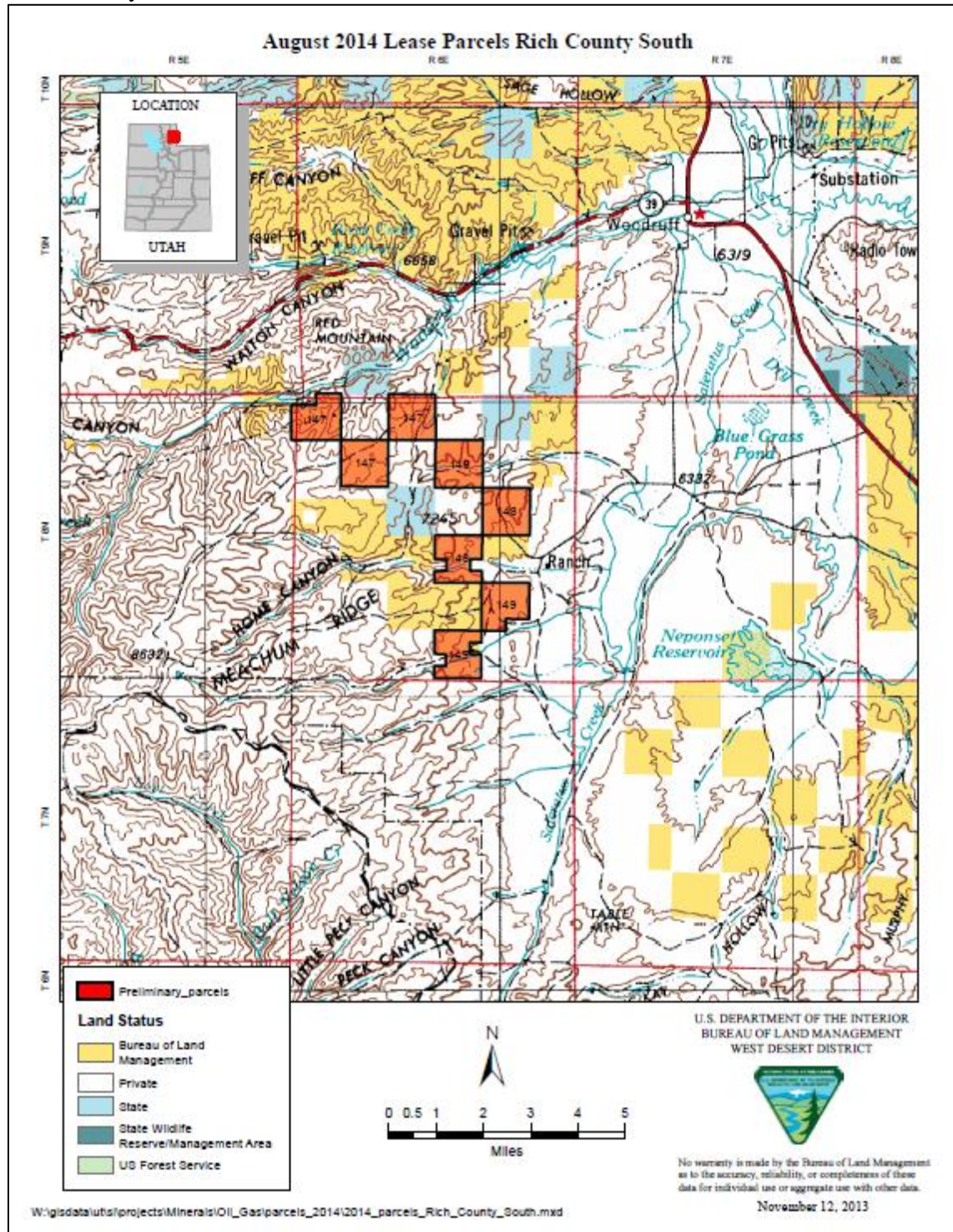
I-80 West



Rich County North Parcels



Rich County South Parcels



APPENDIX C – DEFERRED LANDS LIST

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 001	T. 1 S., R. 11 W., Salt Lake Sec. 29: N2NENE, N2S2NENE, W2E2, W2; Secs. 30 and 31: All.	1,743.72 Acres Tooele County, Utah SLFO	This parcel contains a low level radiation disposal facility that includes an extensive infrastructure. The area may be contaminated with UXO as per the MMRP.
UT0814 - 002	T. 1 S., R. 12 W., Salt Lake Secs. 1, 11 and 12: All.	1,910.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 003	T. 1 S., R. 12 W., Salt Lake Secs. 3, 4, 9 and 10: All.	2,544.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 004	T. 1 S., R. 12 W., Salt Lake Secs. 5, 6, 7 and 8: All.	2,504.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 005	T. 1 S., R. 12 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	North portion of parcel is pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 006	T. 1 S., R. 12 W., Salt Lake Secs. 15, 21 and 22: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 007	T. 1 S., R. 12 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,525.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 008	T. 1 S., R. 12 W., Salt Lake Secs. 25, 26 and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	The area may be contaminated with UXO as per the MMRP. Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 009	T. 1 S., R. 12 W., Salt Lake Secs. 27, 28, 33 and 34: All.	2,560.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 010	T. 1 S., R. 12 W., Salt Lake Secs. 29, 30 and 31: All	1,889.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 011	T. 2 S., R. 12 W., Salt Lake Secs. 1, 11 and 12: All.	1,920.00 Acres Tooele County, Utah SLFO	The area may be contaminated with UXO as per the MMRP. Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 012	T. 2 S., R. 12 W., Salt Lake Secs. 3, 4 and 5: All.	1,923.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 013	T. 2 S., R. 12 W., Salt Lake Secs. 6, 7, 17 and 18: All.	2,521.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 014	T. 2 S., R. 12 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 015	T. 2 S., R. 12 W., Salt Lake Secs. 13, 14 and 15: All.	1,920.00 Acres Tooele County, Utah SLFO	The area may be contaminated with UXO as per the MMRP. Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 016	T. 1 S., R. 13 W., Salt Lake Secs. 1, 11 and 12: All.	1,910.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 017	T. 1 S., R. 13 W., Salt Lake Secs. 3, 4, 9 and 10: All.	2,536.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 018	T. 1 S., R. 13 W., Salt Lake Secs. 5, 6, 7 and 8: All.	2,505.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 019	T. 1 S., R. 13 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 020	T. 1 S., R. 13 W., Salt Lake Secs. 15, 21 and 22: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 021	T. 1 S., R. 13 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,530.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 022	T. 1 S., R. 13 W., Salt Lake Secs. 25, 26, and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 023	T. 1 S., R. 13 W., Salt Lake Secs. 27, 28, 33 and 34: All.	2,560.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 024	T. 1 S., R. 13 W., Salt Lake Secs. 29, 30, and 31: All.	1,890.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 025	T. 2 S., R. 13 W., Salt Lake Secs. 1, 11, and 12: All.	1,920.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 026	T. 2 S., R. 13 W., Salt Lake Secs. 3, 4, and 5: All.	2,560.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 027	T. 2 S., R. 13 W., Salt Lake Secs. 6, 7, 17 and 18: All.	2,518.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 028	T. 2 S., R. 13 W., Salt Lake Secs. 8, 9, and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).
UT0814 - 029	T. 2 S., R. 13 W., Salt Lake Secs. 13, 14 and 15: All.	1,920.00 Acres Tooele County, Utah SLFO	Public safety within Knolls Special Recreation Management Area (SRMA).

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 030	T. 1 S., R. 14 W., Salt Lake Secs. 1, 11 and 12: All.	1,957.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 031	T. 1 S., R. 14 W., Salt Lake Secs. 3, 4 and 5: All.	2,031.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 032	T. 1 S., R. 14 W., Salt Lake Secs. 6 and 7: All.	1,263.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 033	T. 1 S., R. 14 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 034	T. 1 S., R. 14 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 035	T. 1 S., R. 14 W., Salt Lake Secs. 15, 21 and 22: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 036	T. 1 S., R. 14 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,514.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 045	T. 1 S., R. 15 W., Salt Lake Secs. 1, 11 and 12: All.	1,631.77 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 046	T. 1 S., R. 15 W., Salt Lake Secs. 3, 4 and 5: All.	1,895.52 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 047	T. 1 S., R. 15 W., Salt Lake Secs. 6 and 7: All.	1,423.77 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 048	T. 1 S., R. 15 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 049	T. 1 S., R. 15 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 050	T. 1 S., R. 15 W., Salt Lake Secs. 15 and 20: All; Sec. 21: NE, S2NENENENW, NWNENENW, S2NENENW, NWNENW, S2NENW, W2NW, SENW, S2; Sec. 22: All.	2,558.75 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 051	T. 1 S., R. 15 W., Salt Lake Secs. 17, 18 and 19: All.	2,072.74 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 061	T. 1 S., R. 16 W., Salt Lake Secs. 1, 11 and 12: All.	1,912.04 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 062	T. 1 S., R. 16 W., Salt Lake Secs. 3, 4, 9 and 10: All.	2,547.96 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 063	T. 1 S., R. 16 W., Salt Lake Secs. 5, 6, 7 and 8: All.	2,511.12 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 064	T. 1 S., R. 16 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 065	T. 1 S., R. 16 W., Salt Lake Secs. 15 and 22: All; Sec. 27: E2; Sec. 34: E2.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 066	T. 1 S., R. 16 W., Salt Lake Sec. 17: N2; Sec. 18: Lots 1, 2, NE, E2NW.	629.92 Acres Tooele County, Utah, SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 070	T. 1 N., R. 12 W., Salt Lake Secs. 1, 11 and 12: All.	1,942.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 071	T. 1 N., R. 12 W., Salt Lake Secs. 3, 4 and 5: All.	2,051.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 072	T. 1 N., R. 12 W., Salt Lake Secs. 6 and 7: All.	1,310.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 073	T. 1 N., R. 12 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 074	T. 1 N., R. 12 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 075	T. 1 N., R. 12 W., Salt Lake Sec. 15: All; Sec. 22: Lots 1-8, E2; Sec. 27: Lots 1-7, E2, E2W2; Sec. 34: Lots 1, 2, NE, E2NW, S2.	2,289.28 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 076	T. 1 N., R. 12 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,553.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 077	T. 1 N., R. 12 W., Salt Lake Secs. 21, 28 and 33: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 078	T. 1 N., R. 12 W., Salt Lake Secs. 25, 26 and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 079	T. 1 N., R. 12 W., Salt Lake Secs. 29, 30 and 31: All.	1,917.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 080	T. 1 N., R. 13 W., Salt Lake Secs. 1, 11 and 12: All.	1,961.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 081	T. 1 N., R. 13 W., Salt Lake Secs. 3, 4 and 5: All.	2,043.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 082	T. 1 N., R. 13 W., Salt Lake Secs. 6 and 7: All.	1,310.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 083	T. 1 N., R. 13 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 084	T. 1 N., R. 13 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 085	T. 1 N., R. 13 W., Salt Lake Secs. 15, 21 and 22: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 086	T. 1 N., R. 13 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,553.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 087	T. 1 N., R. 13 W., Salt Lake Secs. 25, 26 and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 088	T. 1 N., R. 13 W., Salt Lake Secs. 27, 28, 33 and 34: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 089	T. 1 N., R. 13 W., Salt Lake Secs. 29, 30 and 31: All.	1,917.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 090	T. 1 N., R. 14 W., Salt Lake Secs. 1, 11 and 12: All.	1,961.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 091	T. 1 N., R. 14 W., Salt Lake Secs. 3, 4 and 5: All.	2,043.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 092	T. 1 N., R. 14 W., Salt Lake Secs. 6 and 7: All.	1,312.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 093	T. 1 N., R. 14 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 094	T. 1 N., R. 14 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 095	T. 1 N., R. 14 W., Salt Lake Secs. 15, 21 and 22: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 096	T. 1 N., R. 14 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,555.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 097	T. 1 N., R. 14 W., Salt Lake Secs. 25, 26 and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 098	T. 1 N., R. 14 W., Salt Lake Secs. 27, 28, 33 and 34: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 099	T. 1 N., R. 14 W., Salt Lake Secs. 29, 30 and 31: All.	1,919.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 100	T. 1 N., R. 14 ½ W., Salt Lake Secs. 1, 12, 13, 24 and 25: All.	1,945.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 101	T. 1 N., R. 15 W., Salt Lake Secs. 1, 11 and 12: All.	1,920.20 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 102	T. 1 N., R. 15 W., Salt Lake Secs. 3, 4 and 5: All.	1,921.52 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 103	T. 1 N., R. 15 W., Salt Lake Secs. 6 and 7: All.	1,272.20 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 104	T. 1 N., R. 15 W., Salt Lake Secs. 8, 9 and 10: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 105	T. 1 N., R. 15 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 106	T. 1 N., R. 15 W., Salt Lake Sec. 15: All; Sec. 16: N2NE; Secs. 21 and 22: All.	2,000.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 107	T. 1 N., R. 15 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,556.68 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 108	T. 1 N., R. 15 W., Salt Lake Secs. 25, 26 and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 109	T. 1 N., R. 15 W., Salt Lake Secs. 27, 28, 33 and 34: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 110	T. 1 N., R. 15 W., Salt Lake Secs. 29, 30 and 31: All; Sec. 32: N2.	2,239.36 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 111	T. 1 N., R. 16 W., Salt Lake Secs. 1, 11 and 12: All.	1,920.12 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 112	T. 1 N., R. 16 W., Salt Lake Secs. 3, 4 and 5: All; Sec. 6: SE.	2,083.84 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 113	T. 1 N., R. 16 W., Salt Lake Secs. 7, 8, 9 and 10: All.	2,558.72 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 114	T. 1 N., R. 16 W., Salt Lake Secs. 13, 14, 23 and 24: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 115	T. 1 N., R. 16 W., Salt Lake Secs. 15, 21 and 22: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 116	T. 1 N., R. 16 W., Salt Lake Secs. 17, 18, 19 and 20: All.	2,557.28 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 117	T. 1 N., R. 16 W., Salt Lake Secs. 25, 26 and 35: All.	1,920.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 118	T. 1 N., R. 16 W., Salt Lake Secs. 27, 28, 33 and 34: All.	2,560.00 Acres Tooele County, Utah SLFO	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 119	T. 1 N., R. 16 W., Salt Lake Secs. 29, 30 and 31: All.	1,919.16 Acres Tooele County, Utah SLFO.	Pending CNHT trail management planning. CNHT has not gone through a LUP process.
UT0814 - 143	T. 12 N., R. 5 E., Salt Lake Sec. 11: Lots 9-12; Sec. 12: Lot 4, W2NW, SENW, SW, W2SE; Sec. 13: Lots 1, 2, NWNE, NW, W2SW, SESW; Sec. 14: E2.	1,290.71 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy. Also, this parcel is within the Laketown ACEC which is closed to leasing through the MFP.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 145	T. 12 N., R. 5 E., Salt Lake Sec. 23: E2, E2W2; Sec. 24: Lots 1-3, 5, 7-9, N2NW, SWNW, E2SW; Sec. 25: Lots 7, 8, 11, 12, W2; Sec. 26: NWNE, SENE, SENW, E2SW, SE.	1,696.74 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy. Also, this parcel is within the Laketown ACEC which is closed to leasing through the MFP.
UT0814 - 146	T. 12 N., R. 5 E., Salt Lake Sec. 33: All; Sec. 34: S2N2, S2; Secs. 35 and 36: All.	2,464.40 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy. Also, this parcel is within the Laketown ACEC which is closed to leasing through the MFP.
UT0814 - 147	T. 8 N., R. 6 E., Salt Lake Sec. 4: All; Sec. 6: Lots 1, 2, 5-7, S2NE, SENW, E2SW, SE; Sec. 8: All.	1,835.08 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 148	T. 8 N., R. 6 E., Salt Lake Secs. 10 and 14: All; Sec. 22: N2, NESW, S2SW, NWSE, S2SE.	1,839.78 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 149	T. 8 N., R. 6 E., Salt Lake Sec. 26: Lots 1-3, W2NE, W2, NWSE; Sec. 34: N2NE, SWNE, NW, NESW, S2SW, SE.	1,119.34 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 150	T. 11 N., R. 6 E., Salt Lake Sec. 1: Lot 1; Sec. 3: Lots 5-10, S2; Sec. 4: Lots 1-7, S2N2, N2SW, SESW; Sec. 5: All.	1,807.34 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 151	T. 11 N., R. 6 E., Salt Lake Sec. 6: All; Sec. 7: Lots 1-4, NE, E2W2, N2SE, SWSE; Sec. 8: NE, S2NW, NESE; Sec. 18: Lots 1-4, W2NE, E2W2, SE.	2,045.96 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 152	T. 11 N., R. 6 E., Salt Lake Sec. 9: N2N2, SENE, SWNW, SW, NWSE, SESE; Sec. 10: W2NE, SENE, W2; Sec. 11: NWNE, NENW, SENW; Sec. 15: N2N2, SWNW, W2SW.	1,320.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 153	T. 11 N., R. 6 E., Salt Lake Sec. 11: SESE; Sec. 12: S2NE, SENW, S2; Sec. 13: All; Sec. 14: N2N2, SENE, SWNW, NWSW, S2S2, NESE; Sec. 23: N2NE, SENE; Sec. 24: N2.	2,040.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 154	T. 11 N., R. 6 E., Salt Lake Sec. 19: All; Sec. 20: S2NE, W2, N2SE, SWSE; Sec. 29: S2SW, N2SE, SWSE; Sec. 30: Lots 1-4, E2W2, SE; Sec. 31: All.	2,462.34 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 155	T. 11 N., R. 6 E., Salt Lake Sec. 21: N2NE, SWNE, SENW, NESW, S2SW, SE; Sec. 22: NWNW; Sec. 27: SENW, W2SW; Sec. 28: NENE, W2E2, E2W2, NWSW; Sec. 33: SWNE, NW, N2SW, SESW, SE; Sec. 34: NENE, NWNW, S2N2, S2.	2,040.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 156	T. 11 N., R. 6 E., Salt Lake Sec. 23: SESW, S2SE; Sec. 24: SWSW; Sec. 25: All; Sec. 26: E2, E2NW, SW; Sec. 35: All.	2,000.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 157	T. 12 N., R. 6 E., Salt Lake Secs. 1 and 2: All; Sec. 12: N2, NESE.	1,639.46 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 158	T. 12 N., R. 6 E., Salt Lake Sec. 6: Lots 8, 11, 12; Sec. 7: Lots 3, 5-8, N2NE, E2NW, S2SE; Sec. 8: Lots 1-4, NWNW, S2SW, W2SE; Sec. 17: All; Sec. 18: Lots 1, 2, E2E2.	1,831.70 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy. Also, this parcel is within the Laketown ACEC which is closed to leasing through the MFP.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 160	T. 12 N., R. 6 E., Salt Lake Sec. 11: W2SE, SESE; Sec. 12: S2SW; Sec. 13: NWNE, S2NE, NW, N2SW, SESW, SE; Sec. 14: NE, W2SW; Sec. 15: Lots 1-7, N2NE, SENE, SE, Sec. 24: N2NE.	1,660.46 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 161	T. 12 N., R. 6 E., Salt Lake Sec. 14: S2SE; Sec. 23: N2NE, SWNE, NW, N2S2, SWSW, SWSE; Sec. 24: W2NW, SENW, N2SW, SWSW, SWSE; Sec. 25: All; Sec. 26: NE, NENW, S2NW, S2.	2,120.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 162	T. 12 N., R. 6 E., Salt Lake Sec. 18: SESW; Sec. 19: Lots 1-3, NE, E2NW, NESW, N2SESW, N2S2SESW, N2SE, N2S2SE, N2S2S2SE; Sec. 20: N2, N2SW, SESW, SE; Sec. 30: Lots 3, 4, E2SENE, E2SW, SE; Sec. 31: Lots 1, 2, 4-8, E2NE, E2SW, SE.	2,131.27 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy. Also, this parcel is within the Laketown ACEC which is closed to leasing through the MFP.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 163	T. 12 N., R. 6 E., Salt Lake Sec. 27: W2NE, SENE, W2, SE; Sec. 28: All; Sec. 29: NE, NENW, S2.	1,760.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 164	T. 12 N., R. 6 E., Salt Lake Sec. 33: NE, N2NW, SENW, S2; Secs. 34 and 35: All.	1,880.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 165	T. 13 N., R. 6 E., Salt Lake Sec. 1: Lot 4, SENE, SENW, N2SW, SWSW, NESE, S2SE; Sec. 12: SESW, NESE, S2SE; Sec. 13: W2NE, W2, SWSE; Sec. 14: N2, NWSW, N2SE, SESE.	1,438.69 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 166	T. 13 N., R. 6 E., Salt Lake Sec. 21: W2NE, W2, NWSE; Sec. 22: SWSE; Sec. 27: W2NE, S2NW; Sec. 28: NENW.	680.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 167	T. 13 N., R. 6 E., Salt Lake Sec. 23: E2, NENW, S2NW, SESW; Sec. 24: NENE, S2NE, W2, SE; Sec. 25: E2, NWNW, SENW, E2SW; Sec. 26: NENE, SWSE.	1,640.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 168	T. 13 N., R. 6 E., Salt Lake Sec. 34: NE, S2SE; Sec. 35: SENE, S2NW, N2S2.	520.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 169	T. 12 N., R. 7 E., Salt Lake Sec. 1: Lots 2-4, SW, NWSE; Sec. 11: N2; Sec. 12: W2NW, NWSW.	694.98 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 170	T. 12 N., R. 7 E., Salt Lake Secs. 3, 4, 5 and 6: All.	1,659.12 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 171	T. 12 N., R. 7 E., Salt Lake Secs. 7, 17 and 18: All; Sec. 19: Lot 1, W2NE, SENE, E2NW, NESW, SE.	2,297.48 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 173	T. 12 N., R. 7 E., Salt Lake Sec. 14: SWNW, W2SW; Sec. 15: N2, E2SW, N2NWSW, N2SWNWSW, SENWSW, E2SWSW, SE; Sec. 20: N2, W2SW, SESW, SE; Sec. 21: N2, NWSW, S2S2; Sec. 22: N2N2, SWNW, S2SW.	2,135.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 174	T. 12 N., R. 7 E., Salt Lake Sec. 27: N2NW, SWNW; Sec. 28: All; Sec. 33: N2NE, SWNE, W2.	1,200.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 175	T. 12 N., R. 7 E., Salt Lake Secs. 29, 30 and 31: All.	1,867.46 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 176	T. 13 N., R. 7 E., Salt Lake Sec. 8: E2NE, W2SW, SESW, SE; Sec. 9: NENW, S2NW, SW.	600.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 177	T. 13 N., R. 7 E., Salt Lake Sec. 15: NE, SWNW, W2SW, E2SE, N2NWSE, N2NWSWSESE; Sec. 22: E2NE, W2NW, NESW, N2SE, N2SESE, NESWSESE, N2NWSWSESE SENWSWSESE, NWSESWSSESE, SESESE; Sec. 23: All; Sec. 24: N2NE, SWNE, W2, W2SE, SESE.	1,905.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 178	T. 13 N., R. 7 E., Salt Lake Sec. 17: E2SW, SE, E2SW, SE; Sec. 18: SWNE, SE; Sec. 19: Lots 2-4, NE, SENW, E2SW; Sec. 20: N2; Sec. 21: W2NE, NW.	1,398.11 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 179	T. 13 N., R. 7 E., Salt Lake Sec. 30: All; Sec. 31: Lots 2-4, S2NE, SENW, E2SW, SE.	1,119.82 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

Parcel	Legal Description	Acres and County	Reason for Deferral
UT0814 - 180	T. 13 N., R. 7 E., Salt Lake Sec. 27: S2SESE; Sec. 33: S2NE, SWNW, NESW, S2SW, SE; Sec. 34: NE, S2NW, S2.	980.00 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.
UT0814 - 181	T. 13 N., R. 8 E., Salt Lake Sec. 19: All; Sec. 30: Lots 1, 2, NE, E2NW; Sec. 31: Lots 1-4.	1,122.47 Acres Rich County, Utah SLFO	Parcel occurs within occupied greater sage grouse habitat (UDWR March 2012 dataset). The area is known habitat for the species. The Randolph MFP stipulations are not adequate to protect the species. As per WO IM 2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures), leasing activity is deferred until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy.

APPENDIX D – INTERDISCIPLINARY TEAM CHECKLIST**Project Title:** August 2014 Oil and Gas Lease Sale**NEPA Log Number:** DOI-BLM-UT-W010-2014-0001-EA**File/Serial Number:** Not Applicable**Project Leader:** Larry Garahana**DETERMINATION OF STAFF:**

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

Determi- nation	Resource	Rationale for Determination	Signature	Date
RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)				
PI	Air Quality	<p>Leasing would have no impact on air quality. However, there is some expectation that exploration could occur. Any ground disturbing activity would have to first be authorized as a lease operation but only through additional NEPA analysis. Activities which may be authorized on these parcels subsequent to the lease sale may produce emissions of regulated air pollutants and/or pollutants that could impact air quality related values. Emissions from earth-moving equipment, vehicle traffic, drilling and completion activities, separators, oil storage tanks, dehydration units, and daily tailpipe and fugitive dust emissions could affect air quality. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental impacts. The EPA has classified 187 air pollutants as HAPs. Examples of listed HAPs associated with the oil and gas industry include formaldehyde, benzene, toluene, ethylbenzene, isomers of xylene (BTEX) compounds, and normal-hexane (n-hexane). There are no applicable Federal or State of Utah ambient air quality standards for assessing potential HAP impacts to human health.</p> <p>The project is in an attainment airshed but is located 20 miles upwind of several non-attainment airsheds.</p> <p>Application of lease notices UT-LN-96 (Air Quality Mitigation Measures), UT-LN-101 (Air Quality) and LN-UT-102 (Air Quality Analysis) is warranted on all parcels.</p>	/s/Leonard Herr	2/12/2014

NP	Areas of Critical Environmental Concern	<p>As per the governing land use plan, ACECs are not present or do not intersect the parcels that are carried forward in Appendix A.</p> <p>In Rich County, parcels 143, 145, 146, 158, and 162 fall within portions of the Laketown Canyon which is managed for unique scenic, watershed, wildlife, vegetation, and recreational values. The Laketown Canyon ACEC is closed to leasing so the above listed parcels have been deferred from the sale in Appendix D.</p>	/s/ Pamela Schuller	12/9/2013
NI	Cultural Resources	<p>Section 106 of the NHPA requires Federal Agencies to consider the effect of any undertaking on cultural resources that are listed on, or might be eligible for listing on, the NRHP. The parcels comprising the proposed August 2014 Oil and Gas Lease Sale contain a large number cultural resources that have been recommended eligible for the NRHP. The effect of this undertaking would be considered as the proposed Oil and Gas Lease Sale moves forward. Preliminary environmental compliance efforts associated with the proposed sale of oil/gas leases scheduled for August 2014 includes an assessment of previously recorded cultural resources that might be adversely affected by that sale. In an effort to identify those cultural resources a Class I literature review has been undertaken. The results of that Class I review indicate that six archaeological sites are located within the limits of parcels slated for sale. Of these, none are recommended eligible for the National Register of Historic Places. Prior to grant of an APD in any of the lease parcels offered for sale, Class III surveys must be completed and all previously identified archaeological sites avoided.</p> <p>A literature review of the proposed lease sale indicated that the areas around each offered parcel are of sufficiently low site density that the avoidance of historic properties potentially Eligible for the National Register of Historic Places would not preclude surface development within the parcel and extraction of the leased minerals. Known cultural resources are located in such a fashion (size, density and placement) that avoidance is feasible during exploration for oil and gas resources.</p> <p>A 100% pedestrian survey has not been completed within the APE; therefore, to assure appropriate consideration of future effects from the lease sale, the BLM would add the cultural resources protection stipulation as defined in WO IM 2005-003 to all parcels. If additional, site specific resource protection measures are needed to prevent unnecessary or undue degradation; these would be prepared at the APD stage. Cultural resources assessments would be required prior to any ground disturbing activity. The APE for the proposed undertaking does not encompass any known historic properties; therefore the determination of effect is "No Adverse Effect." SHPO consultation is ongoing.</p>	/s/ Mike Sheehan	03/19/14

NI	Greenhouse Gas Emissions	<p>In addition to the air quality information contained within the governing LUP, new information about greenhouse gases (GHGs) and their effects on national and global climate conditions has emerged since LUP was prepared. Without additional meteorological monitoring and modeling systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions; what is known is that increasing concentrations of GHGs are likely to accelerate the rate of climate change.</p> <p>Determining GHG emissions, their relationship to global climatic patterns, and the resulting impacts is an ongoing scientific process. The BLM does not have the ability to associate a BLM action's contribution to climate change with impacts in any particular area. The technology to be able to do so is not yet available. The inconsistency in results of scientific models used to predict climate change at the global scale coupled with the lack of scientific models designed to predict climate change on regional or local scales, limits the ability to quantify potential future impacts of decisions made at this level and determining the significance of any discrete amount of GHG emissions is beyond the limits of existing science. When further information on the impacts to climate change is known, such information would be incorporated into the BLM's planning and NEPA documents as appropriate.</p> <p>It is currently not feasible to know with certainty the net impacts from leasing and any potential exploration on climate. While BLM actions may contribute to the climate change phenomenon, the specific effects of those actions on global climate are speculative given the current state of the science. Leasing the subject parcels would have no direct impacts on climate as a result of GHG emissions. There is an assumption; however that leasing the parcels would lead to some type of exploration that would have indirect effects on global climate through GHG emissions. However, those effects on global climate change cannot be determined. It is unknown whether the petroleum resources specific to these parcels are gas or oil or a combination thereof. Since these types of data as well as other data are unavailable at this time, it is also unreasonable to quantify GHG emission levels.</p>	/s/ Leonard Herr	2/14/14
NI	Environmental Justice	As defined in EO 12898, minority, low income populations and disadvantaged groups may be present within the counties involved in this lease sale. However, all citizens can file an expression of interest or participate in the bidding process (43 CFR §3120.3-2). The stipulations and notices applied to the subject parcels do not place an undue burden on these groups. Leasing the nominated parcels would not cause any disproportionately high and adverse effects on minority or low income populations.	/s/ Pamela Schuller	12/9/2013
NI	Farmlands (Prime or Unique)	None of the proposed parcels are located in areas that meet the requirements for prime farmland because of inadequate precipitation & irrigation and/or high salinity.	/s/Diana Hawks	3/14/2014

NP	Fish Habitat	There are no streams within any of the parcels that support fish.	/s/ Chris Bryan	02/5/2014
NI	Floodplains	Floodplains, as defined by EO 11988, FEMA, HUD, Corps of Engineers and the LUP, are not present. The salt flat/playa soil types are subject to repeated inundation by water in the fall through spring seasons. The lease sale and application of stipulations/notices would not affect a county's ability to obtain and/or maintain Federal flood insurance. Through design features, BLM would avoid occupancy and modification of floodplain development. The hazard degree is low. Impacts to floodplains are not expected to reach a level that would require adding a lease notice to any of the parcels. Refer also to the riparian and wetland areas discussion. Leasing activity would not affect floodplains. However there is some (low) expectation that drilling and development would occur, at which time additional NEPA would occur should an APD be filed.	/s/ Diana Hawks	3/14/2014
NI	Fuels/Fire Management	The implementation of appropriate reclamation standards at the APD stage would prevent an increase of hazardous fuels. Fuels and fire management would not be impacted by the lease process.	/s/ Brad Jessop	01/13/2014
NI	Geology / Mineral Resources/Energy Production	<p>The proposed action would not affect any mineral resources within the proposed areas.</p> <p>Depending on the success of oil and gas well drilling, non-renewable natural gas and/or oil would be extracted and delivered to market. Production of oil and/or gas would result in the irretrievable loss of these resources. A RFD was prepared. Environmental impacts of the RFD were analyzed and are documented in the EA at section 2.1.1. The proposed action would not exceed the level of activity predicted in the RFD.</p> <p>The FEIS/Supplement and EAR adequately addresses the impacts of oil and gas leasing. While conflicts could arise between oil and gas operations and other mineral operations, these could generally be mitigated under the regulations 3101.1-2, where proposed oil and gas operations may be moved up to 200 meters or delayed by 60 days and also under the standard lease terms (Sec. 6) where siting and design of facilities may be modified to protect other resources.</p>	/s/Larry Garahana	01/10/14

NI	Invasive Species/Noxious Weeds (EO 13112)	Noxious/invasive weed species may be present on the subject parcels. Constraints, including the use of certified weed free seed and vehicle/equipment wash stations, would be applied as necessary at the APD stage as documented in filing plans and COAs. Control measures would be implemented during any ground disturbing activity and documented through a PUP/PAR. Additional control and procedural information is documented in the Programmatic EIS Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States and its Record of Decision, (September 2007). If treatment occurs as part of regular operations, BMPs, SOPs and site specific mitigation are applied at the APD stage as COAs. Negligible impacts would be expected as a result of leasing and exploration. Application of lease notice UT-LN-52 (noxious weed) is warranted on all parcels.	/s/ Anthony VonNiederhausern	1/14/14
NI	Lands/Access	<p>The governing land use plans (as amended) allow for oil and gas development with associated infrastructure. Oil and gas leasing is not expected to affect access to public lands. Leasing would be subject to all valid pre-existing rights. Any proposals for future projects within the oil and gas lease area would be reviewed on a site-specific basis and other right-of-way holders in the area would also be notified, as per regulations, when an application for right-of- way is received by this office. Off-lease ancillary facilities that cross public land, if any, may require separate authorizations. Coordination with existing ROW holders and application of SOPs, BMPs and design features at the APD stage, would ensure protection of existing rights. There are no withdrawals, right of way avoidance or, right of way exclusion areas.</p> <p>The Utah Test and Training Range (UTTR), Military Operations Area (MOA) or Restricted Airspace (RA) intersects parcels 013, 027, 028, 029, 043, 044, 056, 057, 060, & 069. The application of lease notice UT-LN-84 is warranted on these parcels. In addition to those parcels that intersect the UTTR MOA or RA, lease notice UT-LN-84 would be applied to the remaining parcels in Appendix A because of their location adjacent to or close proximity to the UTTR (See sec. 2815 of P.L. 106-65).</p> <p>Parcels 9, 10, 12-14, 015, 22-29, 070, 071, 072, 080, 081, 082, 083, 090, 091, 092, 093, 100, 101, 102, 103, 104, 105, 106, 107, 111, 112, 113, 114, 115, & 116 are deferred and the application of a lease notice is not necessary.</p>	Mike Nelson	01/9/14

NI	Livestock Grazing	<p>Leasing parcels would not impact livestock grazing. However, there is an inherent expectation to conduct operations on each leased parcel. Any activity that involves surface disturbance or direct resource impacts would have to be authorized as a lease operation through future NEPA analysis, on a case-by-case basis, at the APD stage. Impacts to livestock grazing may occur as a result of subsequent actions including exploration development, production, etc. Therefore, reclamation provisions/procedures including re-vegetation (utilizing appropriate seed mix based on the ecological site, elevation and topography), road reclamation, range improvement project replacement/restoration (e.g., fences, troughs and cattle guards), noxious weed control, would be identified in future NEPA/decision documents on a case-by-case basis (at the APD stage). In addition, if any range improvement projects could be impacted by wells or associated infrastructure, well pads could be moved 200 meters to avoid rangeland improvements or vegetation monitoring plots as per 43 CFR 3101.1-2.</p>	/s/ Dylan Tucker	2/10/14
PI	Migratory Birds	<p>The following documents are incorporated: Utah Comprehensive Wildlife Conservation Strategy (CWCS), Utah Partners in Flight Avian Conservation Strategy Version 2.0. (2002), Birds of Conservation Concern (2002), Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, MOU between the USDI BLM and USFWS to Promote the Conservation and Management of Migratory Birds (4/2010), and Utah Supplemental Planning Guidance: Raptor Best Management Practices (BLM UTSO IM 2006-096).</p> <p>Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (Executive Order 13186). MOU between the BLM and United States Fish and Wildlife Service (USFWS) (BLM MOU WO-230-2010-04) provides BLM further direction for project-level NEPA guidance for meeting MBTA conservation and compliance.</p> <p>Bald and golden eagles receive additional protections under the Bald and Golden Eagle Protection Act of 1962. A list of other migratory birds and their habitat that could possibly be affected can be found in Chapter 3.</p> <p>The leasing action would not impact migratory birds. However, future oil and gas exploration may impact migratory birds and their seasonal habitats through development, operation and maintenance activities. This stage occurs when a lessee files an APD, outlining in detail the scope of the proposed action. At that time, impacts to migratory birds could be fully analyzed in additional environmental documents through the NEPA process. COAs would be placed on the APD to reduce impacts to migratory birds to the extent feasible when necessary.</p> <p>Lease notices UT-LN-40 (Golden Eagle Habitat), UT-LN-44 (Raptors) and UT-LN-45 (Migratory Birds) would be applied to all parcels.</p>	/s/ Chris Bryan	02/5/2014

NI	National Historic Trails	<p>Nominated parcels north of Interstate 80 contain high potential segments of the California National Historic Trail (CNHT) and/or are within the view shed of the CNHT. A comprehensive trail inventory and management corridor has not yet been established thru land use planning in conformance with current BLM policy. Current RMPs do not address California NHT resources since the trail was designated by Congress subsequent to the RMP decisions. Deferral of these parcels is recommended until such time as NHT trail inventory is completed and RMP amendments are made that address trail management prescriptions as outlined in BLM Manuals 6250 (national scenic and historic trail administration) and 6280 (management of national scenic and historic trails) and MOU 06-SU-1113242-196. Additional CNHT resource information is documented in the Comprehensive Management and Use Plan Final Environmental Impact Statement California National Historic Trail and Pony Express National Historic Trail (1999).</p> <p>Appendix D lists all parcels that are deferred due to the presence of the CNHT. The parcels identified in Appendix A do not contain portions of the CNHT and lie a sufficient distance from the CNHT to be not practical for inclusion in a future trail management corridor.</p>	/s/ Ray Kelsey	1/9/14
NI	Native American Religious Concerns	<p>The following Tribes were provided information on the project via certified letter on January 14, 2014: Confederated Tribes of the Goshute Reservation, Skull Valley Band of the Goshute Tribe, Paiute Tribe, Ute Indian Tribe, Northwestern Band of Shoshoni Nation, Western Shoshone and Eastern Shoshone. Correspondence is summarized in the Chapter 5 consultation table. No concerns were expressed. Additional coordination would be initiated at the APD stage. The BLM will consult with Indian tribes on a government-to-government basis, if requested by any Tribe.</p>	/s/Diana Hawks	2/13/2014
NP	Paleontology	<p>There are no known paleontological resources within the parcels. If an APD is filed, specific clearances would be conducted and incorporated into that NEPA process. As a COA, if paleontological resources are located, the AO would be contacted.</p>	/s/Larry Garahana	01/10/14
NI	Rangeland Health Standards	<p>Leasing parcels would not impact Rangeland Health Standards. However, there is an inherent expectation to conduct operations on each leased parcel. Any activity that involves surface disturbance or resource impacts would have to be authorized at the APD stage. It would be expected that reclamation procedures identified in the livestock grazing section would be required to ensure impacts to Rangeland Health Standards are minimized. The Gold Book standards also provide mechanisms to achieve Rangeland Health. These include weed control, siting considerations (e.g. well pad, contouring, road alignment), and re-vegetation. Given the degree of anticipated exploration and application of SOPs, BMPs and design features applied at the APD stage as conditions of approval it is concluded that rangeland health standards would be met.</p>	/s/ Dylan Tucker	2/10/14

PI	Recreation	<p>Leasing in parcels within or adjacent to the Knolls SRMA and Bonneville Salt Flats SRMA/ACEC could impact recreational opportunities and experiences within these units. Knolls SRMA is a popular OHV riding area in Utah and the Bonneville Salt Flats host world-renowned landspeed racing and filming activities.</p> <p>In Rich County, leasing in proposed parcels could negatively impact recreational experiences and enjoyment of public lands, especially during summer and fall. Leasing and development could impact OHV riding, hunting, camping, and enjoying the natural scenery. However, all Rich County parcels have been deferred from the sale due to the presence of occupied greater sage-grouse habitat.</p>	/s/ Roxanne Tea	02/06/14
NP	Greater Sage Grouse Habitat	The Rich County parcels occur within occupied greater sage grouse habitat and are recommended for deferral (refer to Appendix C). None of the remaining parcels are within occupied greater sage grouse habitat.	/s/ Chris Bryan	02/5/14
NI	Socio-Economics	Based on the RFD, no quantifiable additional or decreased economic impact to the local area (Tooele County) would be caused by the proposed action.	/s/ Diana Hawks	2/21/14
NI	Soils	Leasing activity would not affect soils. However, there is some expectation that drilling and development could occur, at which time additional NEPA would be conducted should an APD be filed. If additional site specific resource protection measures are needed to prevent unnecessary or undue degradation, these would be developed at the time of the site specific NEPA. The Tooele County soil survey map units include 18, 45 and 46. The ecologic sites include desert oolitic dunes (black greasewood), alkali flat (black greasewood), and desert salty silt (pickleweed) and are associated with the dynal-tooele, playa-saltair, and playa soils. Additional information is documented in the Soil Survey of Tooele Area, Utah (USDA 2000).	/s/ Dylan Tucker	2/10/14
NI	Threatened, Endangered, Candidate or Special Status Plant Species	<p>There are no known species of this status within these parcels. The standard endangered species stipulation as per WO IM 20052-174) is attached to all parcels.</p> <p>However, other sensitive species <i>may</i> be found on all leases; therefore, the Utah Sensitive Species lease notice (UT-LN-49) has been attached to all parcels.</p> <p>Giant four-wing saltbush, a BLM sensitive plant species, grows on the northern portion of Knolls near Interstate 80. It has also been reported on the Union Pacific Railroad Right-of-Way north of Aragonite. Oil and gas leasing in the Knolls SRMA would be limited by NSO stipulations for steep slopes, where this species is present this would provide protections. The area near Aragonite is on private land and has not been found on the nearby BLM lands. Efforts will be made to include this species in reclamation efforts. The oil and gas leasing is not identified to be a problem for the giant four-wing saltbush.</p>	/s/ Rodd Hardy	02/27/2014

NP	Threatened, Endangered, Candidate or Special Status Animal Species	<p>There are no known species of this status within these parcels. The standard endangered species stipulation as per WO IM 20052-174) is attached to all parcels.</p> <p>However, other sensitive species <i>may</i> be found on all leases; therefore, the Utah Sensitive Species lease notice (UT-LN-49) has been attached to all parcels.</p>	/s/ Chris Bryan	02/5/2014
NI	Wastes (hazardous or solid)	<p>None of the proposed oil and gas parcels overlap with HAFB Military Munitions Response Program (MMRP) cleanup areas or EPA superfund sites. Hazardous materials are not known to exist on the parcels identified in Appendix A.</p> <p>The lease parcels are in areas where potential for unexploded ordnance (UXO) is high especially in the Knolls and Grassy Mountain areas. Safety concerns remain and lease notice UT-LN-119 is warranted. Where potential is too high, deferrals are warranted on some parcels.</p> <p>DOD applies the environmental restoration process set forth by CERCLA and its implementing legislation, the National Oil and Hazardous Substance Pollution Contingency Plan, to address cleanup at a munition response site (MRS). With the total MRSs in its inventory, DOD does not have the resources to address all contamination at once. Therefore, DOD developed the Munitions Response Site Prioritization Protocol (MRSP) to prioritize sites for cleanup. The MRS Inventory Site status or score for "AIR FORCE - HILL AFB - FFID UT857172435000", which includes the area of the lease parcels, is listed as "MRSP evaluation pending." (DOD's webpage located at: http://www.denix.osd.mil/mmrp/MRSI/Index.cfm). Land use restrictions and access controls have not been specified. CERCLA remedies that reduce or eliminate the mobility, toxicity, or volume of residual contamination from MRS have not been established and therefore cannot be applied as stipulation or notice at the lease stage for parcels UT0814-001, UT0814-008, UT0814-011 and UT0814-015.</p> <p>Refer to the Air Quality discussion for specific information on Hazardous air pollutants (HAPs). Hazardous materials, if not handled properly that are associated with operations have the potential to be spilled at the lease/drill site. However, the spill would be contained, reported, and cleaned up by the operator. Additional information is provided in sections 2.1 through 2.1.6.</p>	/s/ Mike Nelson /s/Tim Ingwell	01/30/2014 5/15/2014

NI	Water Resources/Quality (drinking, surface, & ground)	<p>The lease parcels do not occur within any Sole Source Aquifers or Drinking Water Source Protection Zones (DWSPZs).</p> <p>If an APD is filed, SOPs required by regulation and design features would be sufficient to isolate and protect all usable ground or surface water sources before drilling or exploration begin. The SOPs include the requirements for disposal of produced water contained in Onshore Oil and Gas Order (OOGO) No. 7 and the requirements for drilling operations contained in OOGO No. 2. Potential fresh water aquifers would be cased and cemented. The casing would be pressure tested to ensure integrity prior to drilling out the surface casing shoe plug.</p> <p>Potential impacts would be addressed and a design feature would be included utilizing UT IM 2010-055 (Protection of Ground Water Associated with Oil and Gas Leasing, Exploration and Development) prior to APD approval. Standard protocols would minimize possibility of releases (cased drill holes, no surface disturbance or occupancy would be maintained within 660 feet of any natural, new disturbance would be not be allowed in areas equal to the 100-year floodplain or 100 meters on either side of the center line of any stream, stream reach, or riparian area).</p>	/s/ Dylan Tucker	2/10/14
NP	Wetlands/Riparian Zones	<p>Riparian or wetland areas do not occur within any of the parcels that are carried forward in Appendix A.</p> <p>Leasing would not affect wetlands and riparian zones. Impacts are not expected to occur as a result leasing or exploration. BMPs, SOPs and site specific mitigation would be applied at the APD stage as COAs.</p>	/s/ Dylan Tucker	2/10/14
NP	Wild and Scenic Rivers	Resource is not present.	/s/ Ray Kelsey	1/9/14
NP	Wilderness/WSA	Resource is not present.	/s/ Ray Kelsey	1/9/14
NI	Wildlife Excluding Special Status Species	Impacts are not expected to occur as a result of leasing. BMPs, SOPs and site specific mitigation would be applied at the APD stage as COAs.	/s/ Chris Bryan	02/5/2014
NP	Woodland / Forestry	Woodland production areas are not present on or adjacent to the parcels. Impacts are not expected to occur as a result leasing or exploration. BMPs, SOPs and site specific mitigation would be applied at the APD stage as COAs.	/s/Rodd Hardy	02/11/2014

NI	Vegetation Excluding Special Status Species	<p>It is expected that reclamation procedures would be required to ensure long-term vegetation impacts are minimized. Reclamation provisions/procedures would include re-vegetation (utilizing appropriate seed mix based on the ecological site, elevation and topography), road reclamation, noxious weed controls, etc.</p> <p>At this stage (lease sale) there would be no impacts to vegetation resources. Impacts (both direct and indirect) would occur if a lease is developed in the future. Potential impacts would be analyzed and would be based on the details (specific site location and supporting infrastructure) contained in an APD. SOPs, BMPs and site specific design features applied at the APD stage including reclamation, would be applied as COAs. COAs would address soil resource issues not already analyzed in the Final EIS for the RMP and the SLFO EAR.</p>	/s/ Dylan Tucker	2/10/14
PI	Visual Resources	<p>All of the parcels that are not being deferred are located in areas managed as VRM Class IV under the current land use plan.</p> <p>Leasing of this area could result in oil and gas exploration. Impacts from exploratory drilling activities would result in short-term temporary impacts to the visual landscape including the introduction of vertical structures into a horizontal landscape.</p> <p>As seen from existing roads in the area, the short-term level of change to the characteristic landscape would be moderate to high; by employing best practices for oil & gas mitigation, the long-term contrast would be low to moderate, which is consistent with management objectives for the area.</p> <p>Lease parcels north of Interstate 80 have the potential to impact the viewshed of the California NHT. Current RMPs do not address California NHT resources since the trail was designated by Congress subsequent to the RMP decisions. Deferral of these parcels is recommended until such time as NHT trail inventory is completed and RMP amendments are made that address trail management prescriptions as outlined in BLM Manuals 6250 (national scenic and historic trail administration) and 6280 (management of national scenic and historic trails) and MOU 06-SU-1113242-196. However, all parcels north of Interstate 80 have been deferred due to the California NHT.</p> <p>Leasing in parcels within or adjacent to the Knolls SRMA and Bonneville Salt Flats SRMA/ACEC could impact visual resources and scenic quality for these units. Knolls is a popular OHV riding area in Utah and the Bonneville Salt Flats play host to world-renowned landspeed racing and filming activities.</p> <p>Leasing in Rich County would cause visual impacts due to open terrain and the sharp color contrast between disturbed soils and vegetation. However, all Rich County parcels have been deferred due to sage grouse habitat.</p>	/s/ Roxanne Tea	2/13/2014

NP	Wild Horses and Burros	The parcels do not intersect herd management boundaries. Changes to herd numbers or use areas are not expected to occur as a result leasing or exploration. Leasing of parcels would not impact wild horses within the Cedar Mountain HMA. Well pads and other infrastructure would have to be located away from established wild horse trap sites. SOPs, BMPs and site specific design features would be applied at the APD stage as conditions of approval.	/s/ Tami Howell	1/16/14
NI	Lands with Wilderness Characteristics	An inventory of the South Salt Desert LWC unit (UT-020-043) which contains 126,615 acres was completed in January 2014. This unit encompasses all of the proposed lease sale parcels. A recommendation was made by the ID Team that the area did not possess wilderness character. This recommendation was signed approved by the District Manager on 2/25/2014. Based on this inventory, there are no lands with wilderness characteristics within the parcels in Appendix A. SLFO has not received citizen-submitted information or proposals. None of the parcels intersect America's Red Rock Wilderness citizen proposed units.	/s/ Roxanne Tea	2/6/14
NI	Property Boundary Evaluation	Leasing parcels would have no effect on property boundaries. Some townships in this area are unsurveyed; however, cadastral field surveys are not required for leasing oil and gas. In accordance with WO IM 2011-122, cadastral survey reviews and verifies the legal land descriptions prior to lease issuance.	/s/ Mike Nelson	3/28/14
FINAL REVIEW:				
Reviewer Title		Signature	Date	
Environmental Coordinator		/s/ <i>Pamela Schuller</i>	5/16/2014	
Authorized Officer		/s/ <i>Rebecca Hotze</i>	5/16/2014	